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# **Risk Problems of Production Credit Associations**



**A Study of Loss Experience, Capital and  
Reserve Position, and Some Alternative  
Methods of Risk-Bearing Available  
to Production Credit Associations**

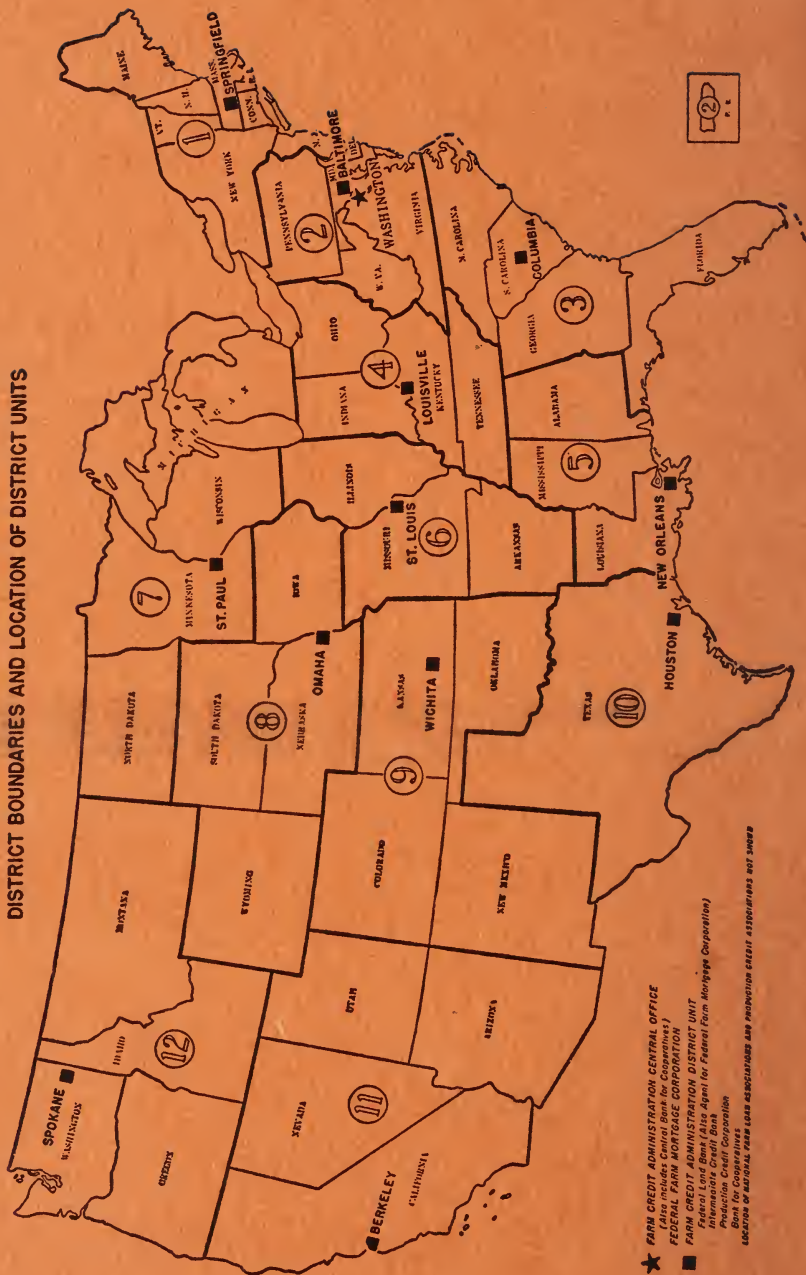
**FARM CREDIT ADMINISTRATION  
U. S. Department of Agriculture  
Washington, D. C.**

**Bulletin CR-5**

**January 1952**

# FARM CREDIT ADMINISTRATION

## DISTRICT BOUNDARIES AND LOCATION OF DISTRICT UNITS



# **Risk Problems of Production Credit Associations**

by

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**E. L. Butz**

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**W. G. Murray**

**R. J. Saulnier**

This report was prepared by the above committee,  
appointed by I. W. Duggan, Governor of the  
Farm Credit Administration

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## FOREWORD

**T**HE production credit associations take pride in the progress that has been made in developing a dependable short-term credit service for farmers. They have adopted the motto, "Credit that will be available in bad times as well as in good times." Since organization in 1933, the experience of the production credit associations has covered only years of good times for farmers generally. Should history repeat itself, years of adversity for agriculture loom somewhere ahead. Agricultural credit institutions with longer histories than the production credit associations have experienced periods, sometimes extending into years, of agricultural depression.

Commercial banks, building and loan associations, insurance companies, and the Federal land banks all have developed over a period of years, usually after some rather trying experience, methods of spreading some of the risks. Commercial banks have appreciated, possibly more than other institutions, the necessity of spreading risks. They have the Federal Deposit Insurance Corporation to protect their depositors. Commercial banks also are eligible to become members of Federal Reserve banks; as such members they have recourse to the resources of the Federal Reserve System to improve their cash positions when needed. Certain types of insured and guaranteed loans in which banks have large investments provide another method of lowering or spreading their total risks. It is also a common practice for one commercial bank to participate with one or more other banks in making a large loan.

Insurance companies spread large risks by such practices as reinsurance.

The organic nature of the Federal land bank system provides means for spreading some of the risks on their loans. However, after the experience of the early thirties the land banks developed and adopted additional procedures for sharing risks with the national farm loan associations.

Aside from the Government capital revolving fund, the production credit associations have no way of sharing risks nor recourse to any comparable assistance in times of stress. Under the present structure, each production credit association stands alone with respect to the risks for its outstanding loans; there is no way now of spreading an association's risk beyond the limits of its territory. Because of the possibility of conditions which may be beyond the control of the borrowers or the association arising in a particular territory, it is evident that individual associations could find themselves in an adverse financial condition beyond their ability to cope with.

During all of the time I have been associated with the Farm Credit Administration, I have been greatly concerned with the risk faced by

the production credit associations under their present mode of operation. On numerous occasions I have called this situation to the attention of the members of the District Farm Credit Boards and the officers directly concerned.

The members of the District Farm Credit Boards considering this subject at their conference in St. Paul in September 1950 adopted the following committee report:

*Spreading of risks.*—With regard to the possibility of setting up some method of spreading risks in PCAs, the committee could not come to any definite plan, but was of the opinion that the subject had sufficient merit to warrant further study.

Pursuantly a committee was appointed to study this problem and review possible plans for spreading the risk among production credit associations, and their report follows. The committee was composed of:

F. F. Hill, Head, Department of Agricultural Economics, Cornell University, Chairman.

William G. Murray, Head, Department of Agricultural Economics, Iowa State College.

George H. Aull, Head, Department of Agricultural Economics and Rural Sociology, Clemson College.

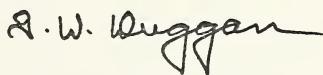
R. J. Saulnier, Barnard College, Columbia University, and National Bureau of Economic Research, New York, N. Y.

E. L. Butz, Head, Department of Agricultural Economics, Purdue University.

A. R. Gans, Director of Research, Federal Land Bank of Springfield.

Since the committee submitted its report, it has been decided to include in an appendix to it certain operating statistics that should prove useful in reviewing the history of the production credit associations and this study of their risk problems.

Through research, study, discussion, and united action, it should be possible to build an even stronger short-term credit system for farmers.



*Governor, Farm Credit Administration.*

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# Risk Problems

of

## *Production Credit Associations*

**P**RODUCTION credit associations have been making loans to farmers and ranchers throughout the United States for 18 years. During this period they have not only rendered satisfactorily a service that is essential to American agriculture but have made substantial progress toward their goal of full farmer-ownership.

Nonetheless, it is useful for PCAs, as for any group of organizations engaged in lending, to take advantage of a time like the present, to review carefully their past operations and to appraise their present financial position in the light of possible future developments. A period of economic prosperity provides an opportunity for lending institutions—private, cooperative, or governmental—to take stock of their ability to withstand future periods of economic adversity and, if necessary, to strengthen their financial position to be better able to weather such periods. Careful study of the ability of the production credit system to help carry worthy borrowers during one or more years of low prices or poor crops, as well as to absorb losses if losses occur, is important from the stand-

point of farmer-borrowers as well as the individual institutions concerned.

The committee submitting this report was appointed by I. W. Duggan, Governor of the Farm Credit Administration, in February 1951 to make such a review and appraisal. The committee did not conceive its task to be that of recommending a specific risk-spreading program. Rather it limited itself to (1) analyzing the loss experience to date and the present position of production credit associations from the standpoint of their ability to bear risks and (2) studying and presenting for discussion and consideration certain methods of improving the ability of PCAs to meet the risks inevitable in agricultural lending without interrupting their credit-supplying function. In the latter connection, it should be made clear that the five alternative methods of spreading risks presented in part II of this report by no means include all possibilities. Furthermore, under some circumstances, more than one of the methods described, or variations of these methods, might be employed at the same

time. The committee purposely selected for exploration and presentation a limited number of methods representing basically different approaches to the risk-bearing problem. It hopes that its report will stimulate discussion of the strengths and weaknesses of these various ways of approaching the problem of risk spreading and lead to other suggestions. Certainly the problem is sufficiently important to the sound long-range development of the production credit system to

warrant its serious study by all interested in the system.

The committee's report consists of three parts: Part I includes an analysis of the past experience and present financial position of production credit associations, and a brief analysis of the experience of other lenders making loans to farmers. Part II includes a brief description of five possible methods of dealing with the PCA risk problem and part III suggested next steps.

## **Part I**

### **Analysis of PCA Operations From Organization to December 31, 1950**

#### **PCA Loss Experience**

**B**Y any standard of comparison, the loss experience of production credit associations has been good. Losses in relation to the amount loaned have been small. From organization in 1933 through 1950, losses for the entire system have amounted to only \$6,413,000 on the \$6,945,000,000 loaned, excluding renewals. This is a loss rate of less than one-tenth of 1 percent. As used here, losses include net charge-offs, estimated losses on specific loans at the close of 1950, and losses sustained through liquidated PCAs.

During this period, the PCAs have had net earnings of approximately \$74,000,000 available to cover losses, to pay dividends, and to build reserves. PCA losses, however, have taken only 8.6 percent of these net earnings. Further, annual net earnings, before provision

for losses, in each of the last 3 years exceeded total losses sustained since organization by \$1,000,000 in 1948, \$2,400,000 in 1949, and \$2,300,000 in 1950. Thus, in relation to both loan volume and earnings, the PCA system as a whole has shown a low rate of loss.

#### **Year-to-Year Variations in Loss Rates**

Despite the system's low over-all loss rate, losses have been substantial in some years. Annual net losses (actual plus estimated), expressed as a percentage of the average amount of loans outstanding in the corresponding year, were highest in the late 1930's, reaching a peak at 0.88 percent in 1938 (table 1). During each of the 4 years, 1936-39, loss rates were 0.28 percent or higher.

Table 1.—Annual net losses on PCA loans in percent of average loans outstanding for the year, by districts, 1936–50<sup>1</sup>

Year	District <sup>2</sup>													United States
	1	2	3	4	5	6	7	8	9	10	11	12		
	Net losses in percent of average loans outstanding													
1936-----	1.07	0.51	0.39	0.67	0.11	0.72	-.13	1.13	0.37	0.52	0.49	1.59	0.68	
1937-----	-.75	.19	.38	.50	.31	.32	.02	-.23	.61	.37	.65	.57	.28	
1938-----	2.92	.92	.73	.35	.71	.23	.04	-.35	.11	.29	2.31	1.36	.88	
1939-----	1.55	.15	.69	.25	.21	.15	-.11	.02	-.19	.07	.80	1.44	.46	
1940-----	1.62	.99	.35	.21	1.15	-.02	-.17	-.15	.12	-.16	-.50	.09	.22	
1941-----	.17	.15	.34	-.16	-.31	-----	-.06	-.03	-.13	.06	-.91	-.64	-.14	
1942-----	-.36	( <sup>3</sup> )	-.05	( <sup>3</sup> )	-.26	-.01	-.07	( <sup>3</sup> )	-.06	.03	-.54	-.32	-.12	
1943-----	-.67	-.12	-.42	-.07	-.08	( <sup>3</sup> )	.11	( <sup>3</sup> )	-.01	-.02	-.31	.05	-.12	
1944-----	-.15	.13	.13	.11	.23	.04	.07	.13	.06	.10	.16	.03	.06	
1945-----	.15	-.08	-.05	-.08	.28	.16	( <sup>3</sup> )	-.02	-.01	-.02	-.05	.06	.03	
1946-----	-.01	-.10	.01	-.05	.80	-.01	.05	.02	-.09	.01	-.04	.04	.06	
1947-----	.14	.05	.10	( <sup>3</sup> )	.04	.18	.14	.01	.05	.01	.31	.19	.10	
1948-----	.07	.05	.29	.11	-.15	-.03	.05	.01	.12	.29	.25	.18	.11	
1949-----	.14	.27	.15	.10	1.09	.45	.04	-.01	.10	.15	.23	( <sup>3</sup> )	.22	
1950-----	.16	.14	.21	.14	.14	.23	-.02	( <sup>3</sup> )	.07	-.10	-.23	.10	.08	

<sup>1</sup> For taxable PCAs, the 1949 and 1950 losses were adjusted for the "general provision for undetermined losses." Liquidated PCAs are included.

<sup>2</sup> Farm Credit districts are designated by numbers in the tables in this report. In the text, they are frequently referred to by name. The numbers and names of the 12 districts are: 1. Springfield; 2. Baltimore; 3. Columbia; 4. Louisville; 5. New Orleans; 6. St. Louis; 7. St. Paul; 8. Omaha; 9. Wichita; 10. Houston; 11. Berkeley; 12. Spokane.

<sup>3</sup> Less than 0.005 percent.

With the outbreak of World War II and the rapid rise in farm incomes which followed, loss rates on PCA loans declined sharply and have since remained at a low level. As a matter of fact, during each of the 3 years 1941 to 1943 there were net recoveries of 0.12 percent or 0.14 percent of average loans outstanding. These recoveries resulted primarily from the fact that many loans, with prospective liquidation at a loss during the late 1930's, actually did pay out either in full or with smaller losses than anticipated. Consequently, reserves established in the late 1930's in anticipation of losses were taken back into earnings during the early 1940's. In addition, recoveries were made on some charged-off loans. During the 7-year period 1944 to 1950 loss

rates exceeded 0.10 percent of average loans outstanding in only 2 years, reaching a peak of 0.22 percent in 1949.

### Variations in Loss Rates Among Districts and Individual Associations

A comparison of annual PCA loss rates among individual Farm Credit districts shows the same general tendency for losses to be relatively high during the late 1930's, followed by one or more years of net recoveries, and relatively low during recent years (table 1). However, there have been considerable variations among districts, with losses varying from 0.01 percent of total cash advanced from organization through 1950 in the Omaha district

to 0.33 percent in the Springfield district, as follows:

District:	<i>Net charge-offs and estimated losses in percent of total cash advanced through 1950<sup>1</sup></i>
Springfield.....	0.33
Baltimore.....	.15
Columbia.....	.10
Louisville.....	.06
New Orleans.....	.17
St. Louis.....	.07
St. Paul.....	.03
Omaha.....	.01
Wichita.....	.04
Houston.....	.04
Berkeley.....	.08
Spokane.....	.15

<sup>1</sup> Includes liquidated PCAs but excludes the "general provision for undetermined losses" in taxable associations. Average for all districts, 0.09 percent.

There also has been considerable variation in the over-all loss rates of individual associations in certain districts. For example, no individual PCA in the Omaha district from organization through 1950, has had losses amounting to as much as 0.10 percent of total cash advanced, but the Springfield and Columbia districts have each had 7 PCAs with loss rates of 0.30 percent or more

(table 2). For the entire PCA system, 358 associations (71.6 percent of the total) had loss rates of less than 0.10 percent from organization through 1950, but 31 associations had loss rates of 0.30 percent or more. These differences among individual associations would, of course, be greater if liquidated PCAs were included.

In interpreting this loss experience it must be borne in mind that 80 percent of the total cash advanced by PCAs, since organization, was advanced during the 10-year period 1941 to 1950, years during which unprecedented war and post-war inflation kept losses at a minimum. Under such conditions, the large number of PCAs with extremely low over-all loss rates is not surprising. In effect, the loss experience of the pre-inflation period has been "watered down" by the large volume of loans made during a period of extremely favorable economic conditions, when losses on all types of loans were abnormally low.

**Table 2.—Distribution of PCAs by percent loss to total cash advanced, organization to Dec. 31, 1950<sup>1</sup>**

Percent loss to cash advanced	District													Total
	1	2	3	4	5	6	7	8	9	10	11	12		
	Number of PCAs													
None-----	1	-----	2	1	-----	4	7	2	-----	2	-----	2	19	
Less than 0.005-----	11	19	52	29	6	6	16	19	10	8	3	5	74	
0.005-0.09-----	11	12	8	5	10	7	28	29	14	25	23	15	265	
0.10-0.19-----	11	12	8	5	10	7	4	-----	25	4	8	1	72	
0.20-0.29-----	5	3	13	2	8	-----	1	-----	1	1	2	3	39	
0.30-0.39-----	3	1	3	-----	1	2	-----	-----	-----	-----	2	2	14	
0.40-0.49-----	2	-----	1	-----	-----	1	-----	-----	1	-----	-----	1	6	
0.50-0.59-----	-----	-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	2	
0.60-0.69-----	1	-----	2	-----	1	-----	-----	-----	-----	-----	-----	2	6	
0.70-0.79-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	
0.80 and over-----	1	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	2	
Total-----	35	36	87	40	26	45	54	40	41	36	30	30	500	

<sup>1</sup> Losses include total net charge-offs and estimated losses on specific loans as of Dec. 31, 1950. The general provision for undetermined losses of tax-paying PCAs and losses of liquidated PCAs are not included.

Table 3.—Distribution of PCAs by percent loss to total cash advanced, organization to Dec. 31, 1940<sup>1</sup>

Percent loss to cash advanced	District													Total
	1	2	3	4	5	6	7	8	9	10	11	12		
	Number of PCAs													
None.....	1	1	5	1	---	1	8	12	---	---	---	1	30	
Less than 0.005.....	---	---	3	2	1	2	16	10	6	6	2	---	48	
0.005-0.09.....	2	9	29	11	7	27	24	15	18	13	2	7	164	
0.10-0.19.....	3	5	22	11	8	12	11	2	8	11	6	10	109	
0.20-0.29.....	3	6	12	4	3	6	5	3	6	3	7	3	61	
0.30-0.39.....	2	2	5	5	1	1	3	---	1	---	2	1	23	
0.40-0.49.....	3	5	6	2	2	---	---	---	---	1	2	1	22	
0.50-0.59.....	3	1	2	1	1	---	---	---	1	---	---	---	9	
0.60-0.69.....	---	3	1	1	1	---	1	---	---	1	---	---	8	
0.70-0.79.....	1	1	---	1	1	---	---	---	1	1	2	1	9	
0.80-0.89.....	1	1	1	1	---	---	---	---	---	---	---	1	5	
0.90-0.99.....	1	---	2	1	---	---	---	---	---	---	3	2	9	
1.00-1.19.....	6	1	3	1	1	1	---	---	---	---	---	1	14	
1.20-1.39.....	1	1	---	---	---	---	---	---	---	---	1	1	4	
1.40-1.59.....	2	---	1	1	---	---	---	---	---	---	1	---	5	
1.60-1.79.....	2	---	---	---	---	---	---	---	---	---	---	---	2	
1.80-1.99.....	---	---	2	---	---	---	---	---	---	---	1	---	3	
2.00 and over.....	3	---	---	---	---	---	---	---	---	---	---	1	4	
Total.....	34	36	94	43	26	50	68	42	41	36	29	30	529	

<sup>1</sup> Losses include total net charge-offs and estimated losses on specific loans as of Dec. 31, 1940. Liquidated PCAs are not included.

A quite different picture of loss experience is revealed if the war and postwar years are excluded and only the period from organization through 1940 considered. These data show not only a higher average loss rate—0.34 percent of total cash advanced—but also much greater variation in loss rates among individual PCAs. For this less favorable period only 242 PCAs—45.7 percent of the total number—showed loss rates of less than 0.10 percent compared with 71.6 percent for the period through 1950. At the other extreme, by 1940, 8.7 percent of the PCAs had accumulated losses (actual plus estimated) equal to 0.8 percent or more of the total cash they had advanced compared with 0.4 percent for the period through 1950 (table 3). These data also give a relatively favorable view

of loss experience since they include only PCAs in active operation at the indicated dates. Those liquidated, or in process of liquidation, are excluded.

Whatever these comparisons of PCA loss experience in different periods may suggest as to future experience, they do show that at certain times in the history of the PCA system there have been wide differences in loss experience of individual associations. The past 10 years of war and postwar inflation, with their attendant widespread prosperity, have resulted in a "levelling out" of over-all loss rates from organization to date. Thus the differences in loss experience among PCAs in this period cannot be taken as a guide to what may be expected under more normal conditions of farm prices and incomes.

## Liquidations of PCAs

To date, the production credit system has had only limited need for supplementary methods of handling the problem incident to heavy losses in individual PCAs as indicated by the fact that only 8 of 688 associations organized have been liquidated primarily because of actual or anticipated losses. The reduction in number of PCAs from the 688 organized to the 500 in active operation at the end of 1950 has been accounted for as follows:

Total number of associations organized.....	688
Associations no longer operating:	
Charter canceled before beginning operations.....	9
Consolidated with other associations.....	141
Liquidated:	
Primarily to consolidate territories.....	27
Primarily because of actual or anticipated losses.....	8
State-wide associations not replaced.....	3
Total.....	188
Total number of associations in active operation.....	500

Of the eight PCAs liquidated because of actual or anticipated losses, all were placed in active liquidation during the years 1935 to 1938. They loaned a total of \$24,812,000 with losses on loans amounting to \$1,281,182, or 5.2 percent. In six of the eight associations, liquidation resulted in complete loss to the members of their class B stock and only partial recovery by the production credit corporations on the class A stock they owned in these associations. Of the other two associations, one paid liquidating dividends in excess of the par value of stock; the other

liquidated its PCC-owned class A stock at par, but members received liquidating dividends equal to only 84 percent of the par value of their stock.

All but one of the eight liquidated PCAs encountered difficulties through losses on loans to producers of potatoes, truck crops, fruit, and other specialty crops. The one exception suffered losses from bad management.

## PCA Capital Stock Impairment Subsequently Restored

In addition to the eight liquidated PCAs, nine others have experienced sufficiently heavy losses to wipe out their valuation reserves and accumulated earnings and to impair their class B stock, but subsequently have eliminated the impairment. Again, as with the liquidated associations, the temporary impairment of most of these nine PCAs—five of the nine—resulted from losses on fruit or vegetable loans. One other impairment was directly attributable to hurricane damage in an area where a hurricane of comparable severity had not occurred for 100 years; another was traceable to a “bad faith” loan. The other two associations were operating in areas where agriculture was undergoing major readjustments with considerable abandonment of farms.

In all except one of these nine PCAs the initial impairment occurred prior to 1940, and six had restored their stock to par by the end of 1940. Since July 1943, no PCAs have suffered impairment of their capital stock.

## Loss Experience of Other Lenders

Because the lending experience of PCAs has been limited to the rising phase of a major "price cycle," their losses on loans can hardly be taken as representative of those sustained on loans to farmers under adverse economic conditions. This contrast can be shown by examining the experience of commercial banks and agricultural credit corporations in the 1920's and 1930's. The data, however, are not introduced with the object of suggesting that the experience they portray will necessarily be repeated in the years ahead, but they do show very clearly the inevitable relationship between economic conditions and loss experience. Unless one is prepared to assume that economic conditions in the future will be at least as favorable as they have been since 1934, it is clearly essential to consider ways and means of absorbing, without interrupting lending services, heavier losses than those the PCAs as a group have so far experienced.

### Commercial Banks

Although data on commercial bank loss experience are not fully comparable with PCA data, they do show clearly how loss rates are related to price changes. Table 4 gives three series of commercial bank data and PCA loss rates. All three series follow essentially the same general pattern—losses were relatively low during the late 1920's, rose to a sharp peak in 1934, and then declined rapidly to 0.10 per-

cent or less during most of the 1940's. The national bank series, from which recoveries are excluded, goes back to 1918. It shows that losses rose during the post World War I deflation period, 1921-22, and continued throughout the 1920's at rates about double the 1918-20 level. Since 1937, PCA loss rates have not differed materially from those of commercial banks.

The close relationship between loss rates and farm price changes is revealed in figure 1, which shows net losses of country national banks from 1927 to 1950, total losses (recoveries excluded) of all national banks from 1918 to 1930, net losses (actual plus estimated) of PCAs from 1936 to 1950, and an index of the prices of farm products from 1800 to 1950. When prices are rising, farm incomes and debt repayment ability also rise, the value of loan collateral increases, and the risk of loss on loans declines. When the situation is reversed, credit risks increase rapidly.

Except for 1936, when national bank loss rates were relatively high, presumably a result of losses taken on loans made in earlier years, commercial bank loan experience has been equally as good as that of PCAs. Data on the net loss rates of country national banks for the period 1927 to 1950 are shown for each Farm Credit district in figure 2. Considerable district variation in the extent of losses is noticeable, particularly during the high-loss years of the early 1930's. For

**Table 4.—Annual losses in percent of loans outstanding for the corresponding year for national banks, Federal Reserve member banks, and PCAs, 1918-50**

Year	National banks		Net losses of Federal Reserve mem- ber banks	Net losses of PCAs <sup>3</sup>
	Total losses of all banks <sup>1</sup>	Net losses of country banks <sup>2</sup>		
	Percent of loans outstanding <sup>4</sup>			
1918	0.35			
1919	.26			
1920	.36			
1921	1.05			
1922	1.08			
1923	.92			
1924	.79			
1925	.68			
1926	.65			
1927	.62	0.70	0.4	
1928	.58	.60	.4	
1929	.62	.59	.4	
1930	.94	.71	.7	
1931	1.78	1.13	1.4	
1932	2.66	2.10	2.5	
1933	3.77	2.98	3.1	
1934	3.99	3.83	3.4	
1935	2.13	2.63	1.5	
1936	1.87	1.37	.8	0.68
1937	.82	.48	.2	.28
1938	.95	.42	.6	.88
1939	.74	.33	.4	.46
1940	.58	.31	.2	.22
1941	.44	.16	.1	+ .14
1942	.42	.05	.1	+ .12
1943	.43	+ .15	+ .1	+ .12
1944	.36	+ .22	+ .1	.06
1945	.21	+ .19	( <sup>5</sup> )	.03
1946	.26	+ .12	( <sup>5</sup> )	.06
1947	.34	.06	.1	.10
1948	.21	.10	.1	.11
1949		.18		.22
1950		.09		.08

<sup>1</sup> Losses before deduction of recoveries.

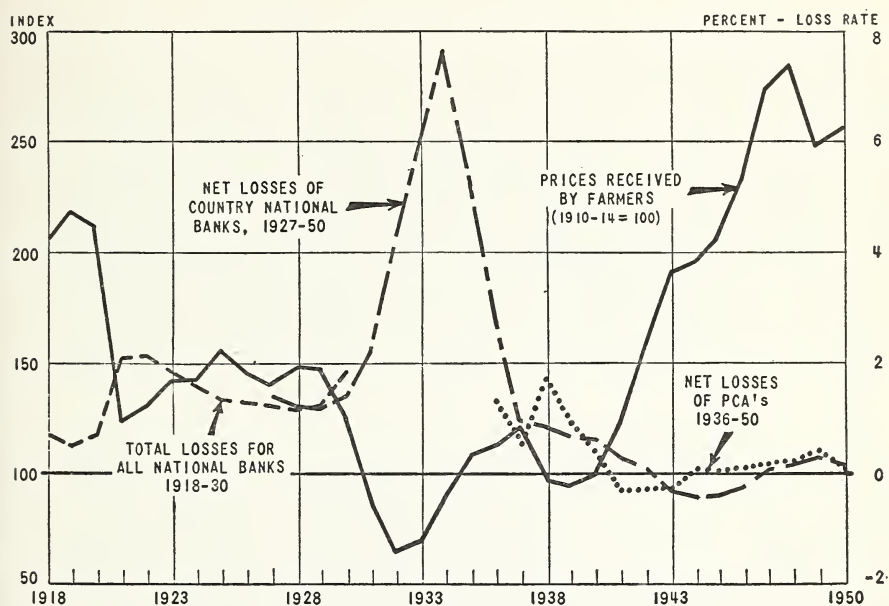
<sup>2</sup> Total losses less recoveries. Except for 1928 to 1937 when the banks in 14 to 21 cities with less than 3 banks are included, the data include all national banks except those in reserve or central reserve cities.

<sup>3</sup> Net losses (actual plus estimated), with the 1949 and 1950 losses of taxable PCAs adjusted for the "general provision for undetermined losses." Liquidated PCAs are included.

<sup>4</sup> Losses during each year were expressed in percent of loans outstanding at the following dates: For total losses of all national banks, calendar year losses and Dec. 31 loans outstanding; for country national banks prior to 1938, fiscal year losses and June 30 loans outstanding, and subsequent years are calendar year losses and Dec. 31 outstandings; for Federal Reserve member banks, calendar year losses and Dec. 31 loans outstanding, except in 1948, when the average of loans outstanding on call dates were used; for PCAs calendar year losses and average of month-end balances of loans outstanding.

<sup>5</sup> Less than 0.05 percent.

Figure 1.—Loss Rates on Loans of National Banks and PCAs, 1918-50, and Index Numbers of Prices Received by Farmers, 1800-1950.



INDEX NUMBERS OF PRICES RECEIVED BY FARMERS  
UNITED STATES, 1800 TO DATE

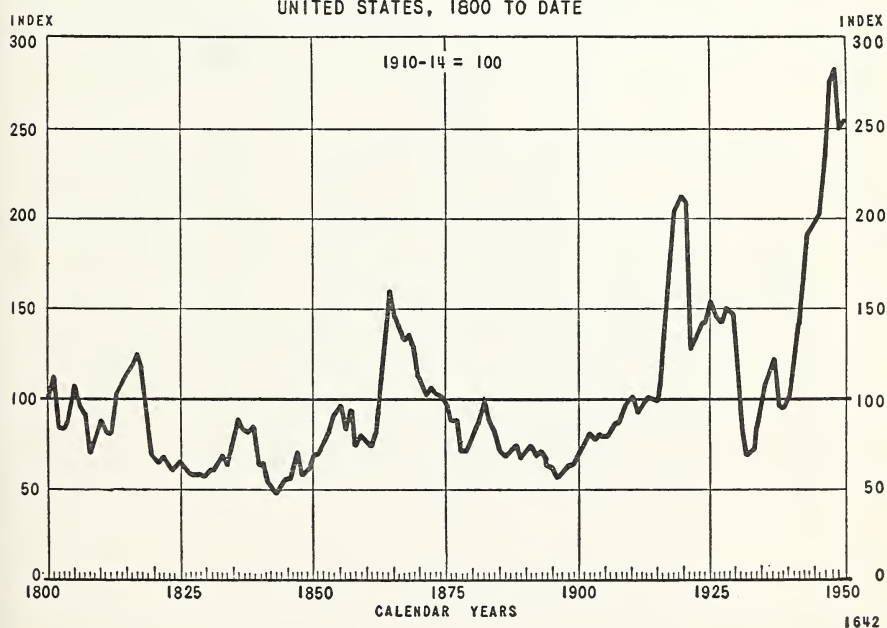
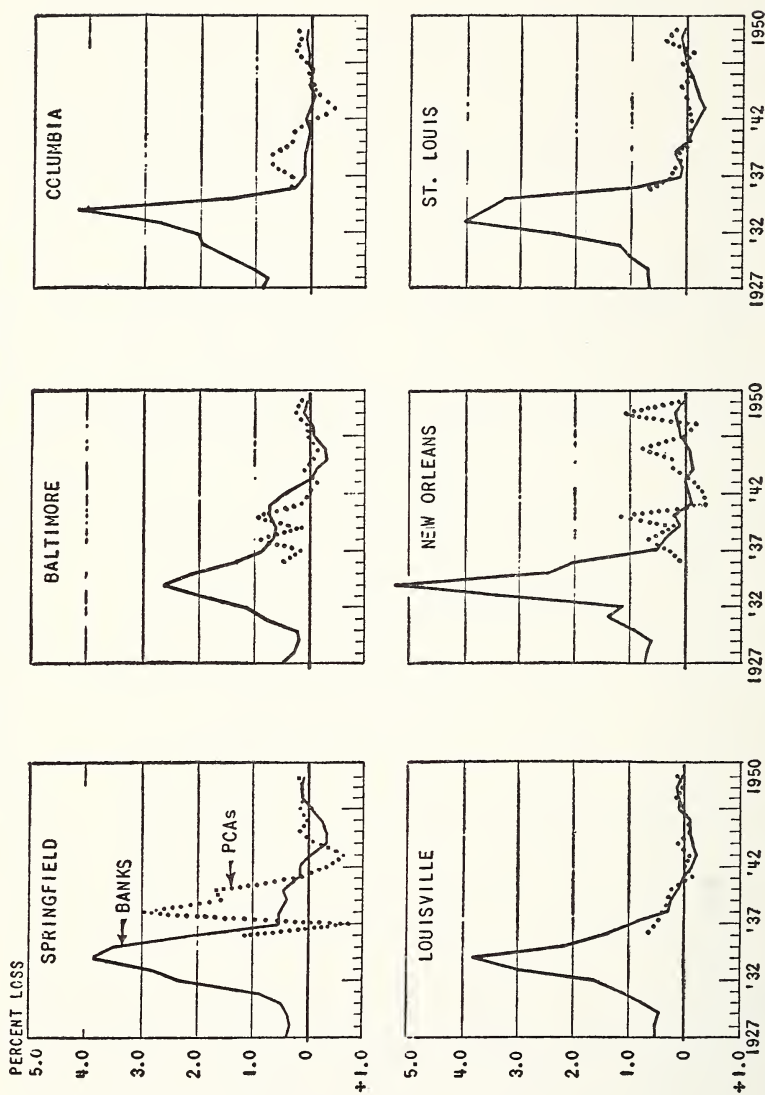
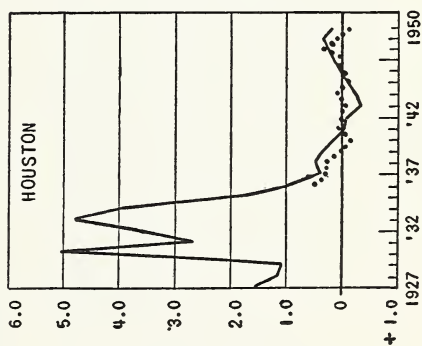
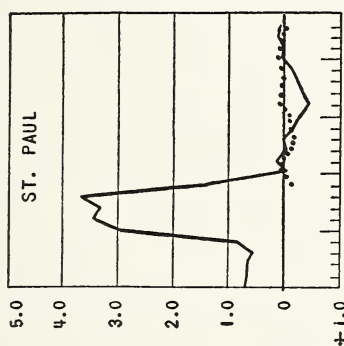
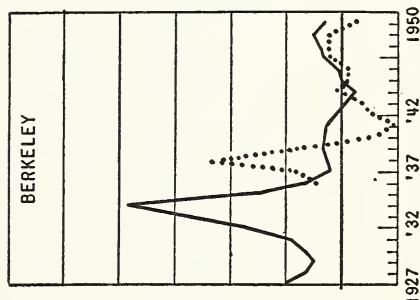
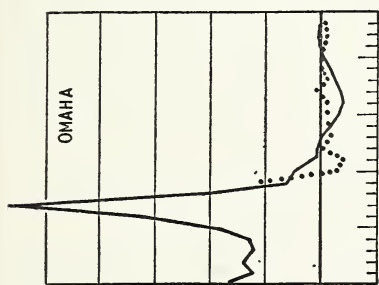
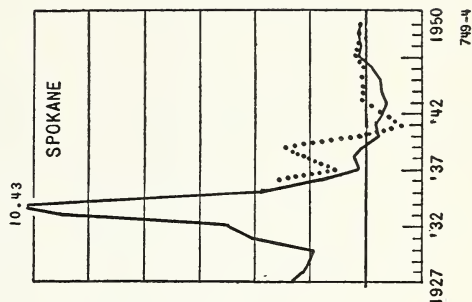
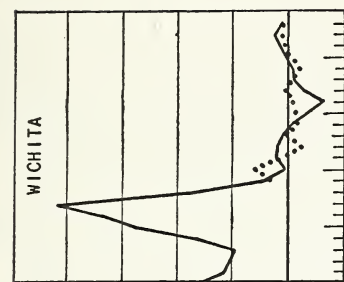


Figure 2.—Annual Losses in Percent of Loans Outstanding for “Country” National Banks, 1927–50, and PCAs, 1936–50, by Farm Credit districts.





example, the peak loss rate ranged from 2.67 percent in the Baltimore district to 10.43 percent in Spokane. However, the general pattern of changes in loss rates was much the same in all districts. The peak loss rate came in 1934 in 9 of the 12 districts and thereafter loss rates declined rapidly to the very low levels of the past 10 years. National banks, like PCAs, had at least 2 years of net recoveries during the 1940's, and in the St. Louis, St. Paul, Omaha, Wichita, and Spokane districts they had 6 or 7 consecutive years of net recoveries.

Aside from the close relationship which they reveal between loss rates and farm price changes, figures 1 and 2 are significant also for the light they throw on the problem of spreading the burden of losses on PCA loans. First, they show that periods of high loss rates have tended to persist over several consecutive years, which has meant an extended drain on reserves. Second, figure 1 shows wide farm price fluctuations over the past 150 years, and a definite tendency for these fluctuations to become more rather than less violent. It is not the function of this committee to forecast the future course of farm prices, but attention may be directed to the record of price fluctuations over the past 150 years to indicate that it would have been a mistake in judgment to have made loans at any time during this period on the assumption that prices were going to remain even approximately unchanged.

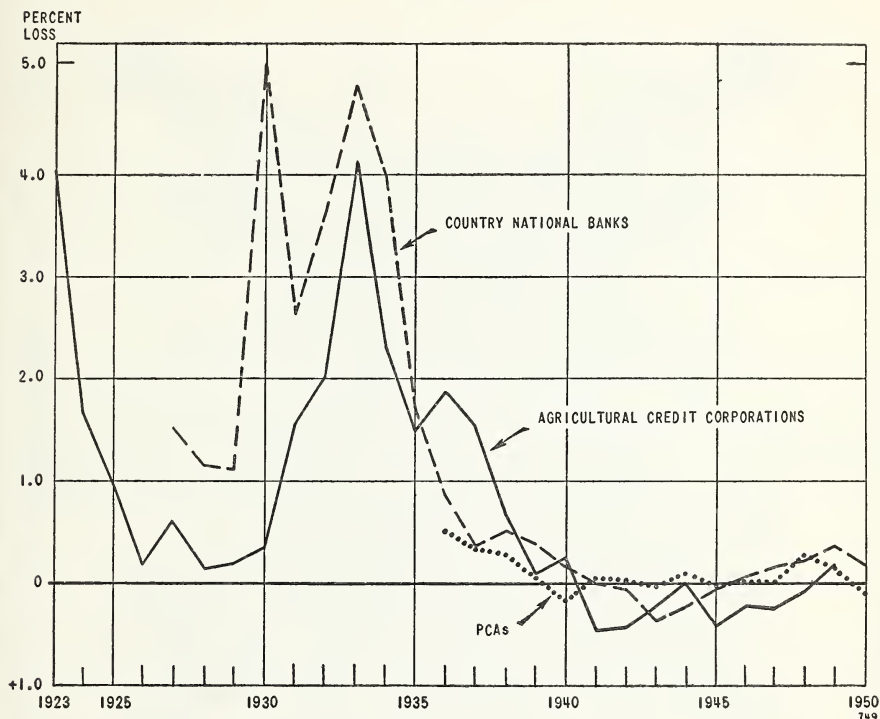
It should be pointed out that commercial bank loss experience

data are not strictly comparable with those for PCAs. First, the bank data include both nonfarm and farm loans and losses on real estate mortgage loans as well as on short-term production loans. Further, the bank series exclude losses by banks placed in receivership or trusteeship subsequent to the date of such receivership or trusteeship. Finally the data on national banks naturally do not include State banks, and data on Federal Reserve member banks do not include nonmember banks. Despite these limitations, however, the data are adequate to show how rising and falling prices, with attendant farm prosperity and depression, have affected loss experience.

### **Texas Agricultural Credit Corporations**

Further evidence of how loss experience has fluctuated widely, and how these fluctuations have been related to changes in farm prices and incomes, is provided by data compiled by the Production Credit Corporation of Houston on livestock loan companies and agricultural credit corporations in Texas. These data, at their maximum, cover 18 agricultural credit corporations which rediscounted loans with the Federal Intermediate Credit Bank of Houston during at least part of the period 1923 to 1949. Only corporations organized in 1931 or earlier were included in order that all those represented would have been exposed to at least a few years of falling or depression-level prices. Of the 18

Figure 3.—Annual Losses in Percent of Loans Outstanding for "Country" National Banks, Agricultural Credit Corporations, and PCAs in Texas, 1923-50.



corporations, 1 financed rice growers principally; 6 concentrated on sheep and goat financing; 2 specialized in cattle loans; and the balance handled general livestock paper.

Losses of these livestock loan and agricultural credit corporations were highest in 1923 and in the depression years of the early 1930's. They declined rapidly with the recovery in prices and farm incomes after 1933 and recoveries generally exceeded losses from 1941 through 1948 (figure 3). Except for unusually large losses in 1930, country national banks in Texas had loss rates which varied similarly with those of the livestock loan and

agricultural credit corporations. For the 23-year period 1927-49, the average of the annual loss rates for the livestock loan and agricultural credit corporations was 0.7 percent, compared with 1.2 percent for the country national banks. Since 1936, PCA loss rates have been much the same as those for country national banks and for credit corporations.

### Regional Differences in Loss Experience

The regional differences in PCA loss experience discussed previously are illustrated graphically in figures 4 and 5 which show PCA loss ex-

Figure 4.—PCA Loss Experience from Organization to December 31, 1950.

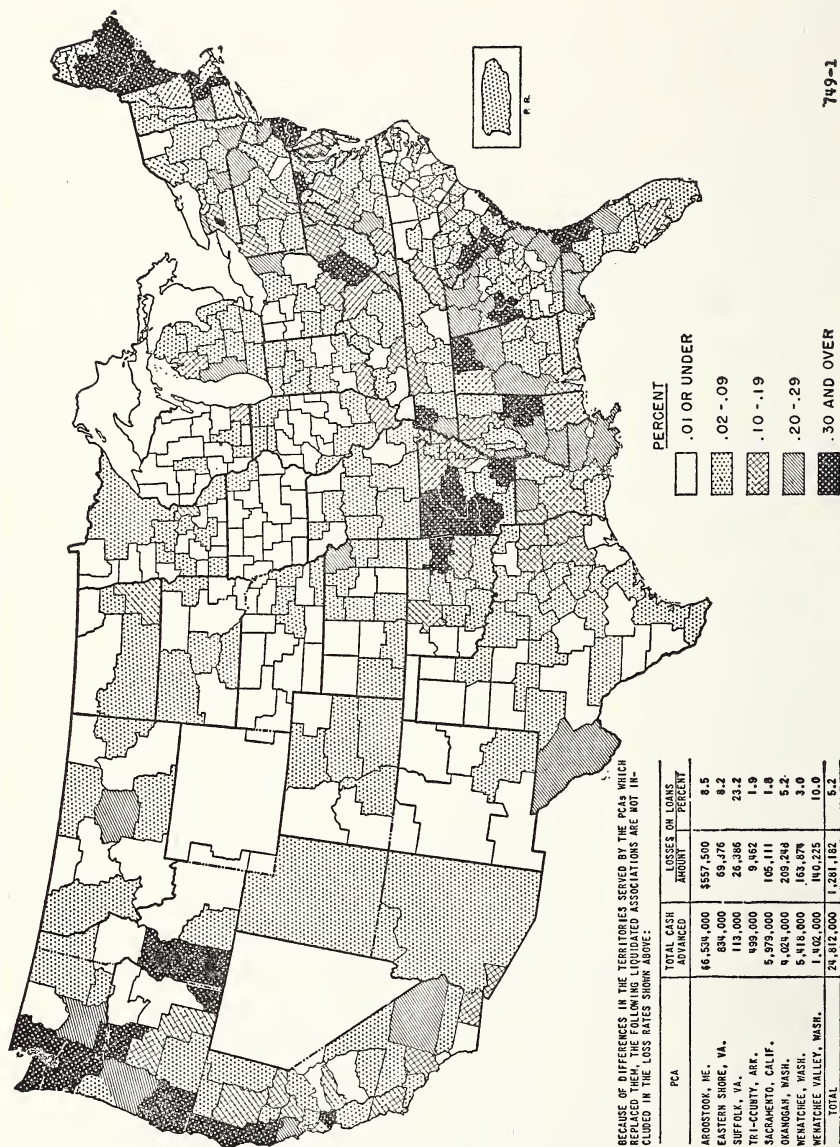


Figure 5.—PCA Loss Experience from Organization to December 31, 1940.

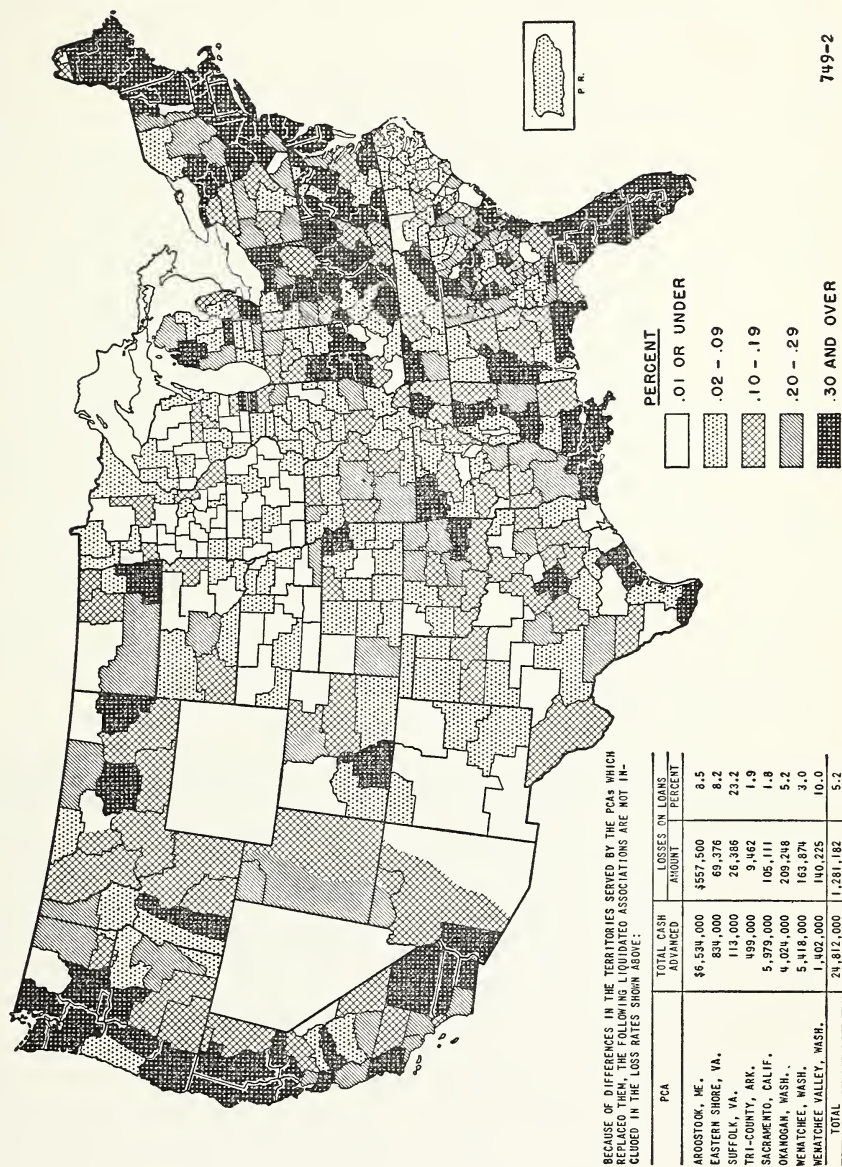
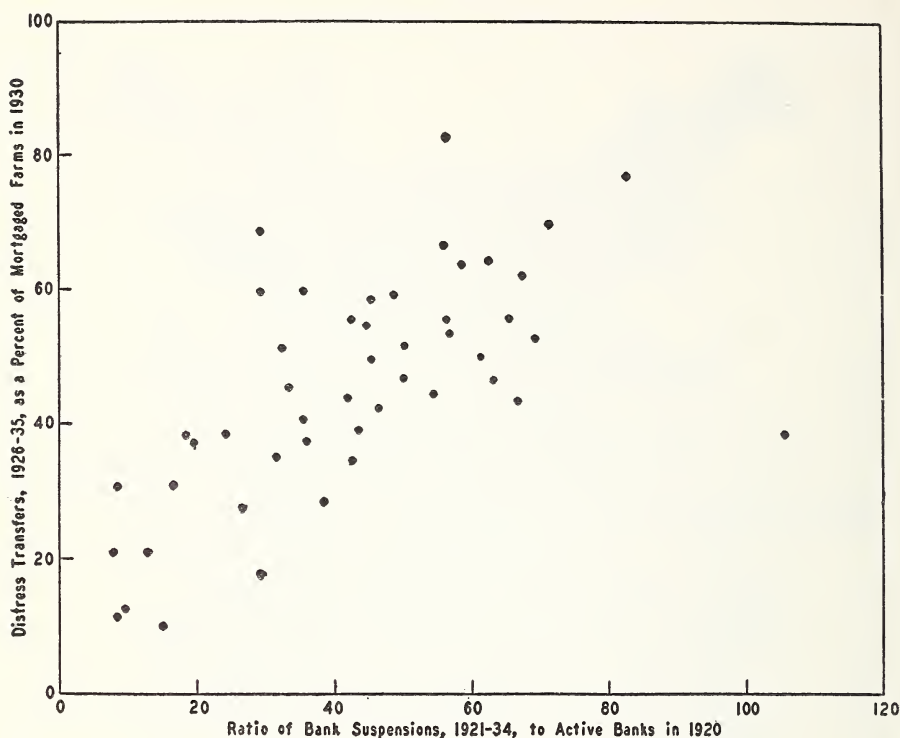


Figure 6.—Relation Between Bank Suspensions, 1921-34, and Distress Farm Transfers, 1926-35, 48 States.



Source: See figures 8 and 9.

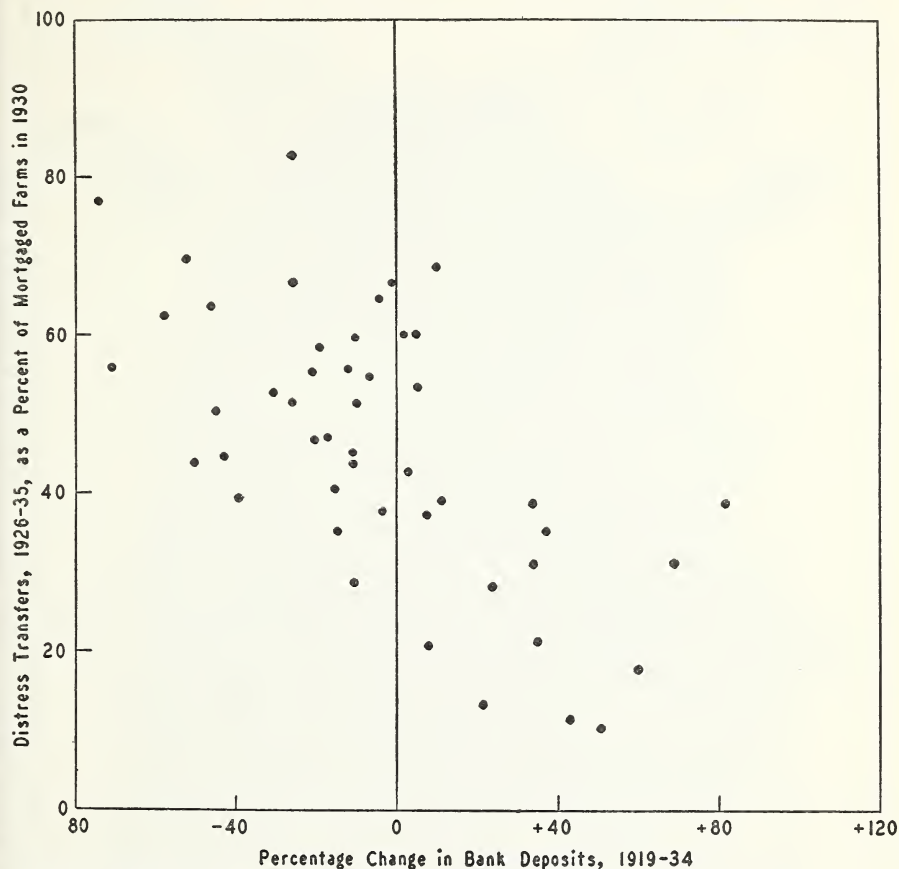
perience from organization through December 31, 1950, and through December 31, 1940, on an individual PCA basis. These maps reveal that the highest PCA loss rates have been in the Northeast, in the Southeast, and in the Northwest, and that the heaviest losses within these areas have been on fruit, vegetable, or other specialty crop loans. In contrast, PCA losses in the Great Plains and the Mountain States have been low.

It is very important to note that this geographic pattern of losses contrasts sharply with the record of farm financial distress during the 1920's and 1930's. For example, data compiled by the U. S. Depart-

ment of Agriculture on transfers of farms by foreclosures and related defaults show that for the years 1925 to 1939 the highest rates were in the Great Plains area, and that high rates were also characteristic of the Mountain States and the Cotton Belt.

Regional differences in the financial difficulties of farmers are also revealed by figures on commercial bank suspensions and on the shrinkage of bank deposits. The operations of commercial banks naturally reflect the prosperity of the communities they serve: Declining incomes and tightened credit conditions are quickly reflected in withdrawals of deposits. Substantial

Figure 7.—Relation Between Change in Bank Deposits, 1919-34, and Distress Farm Transfers, 1926-35, 48 States.



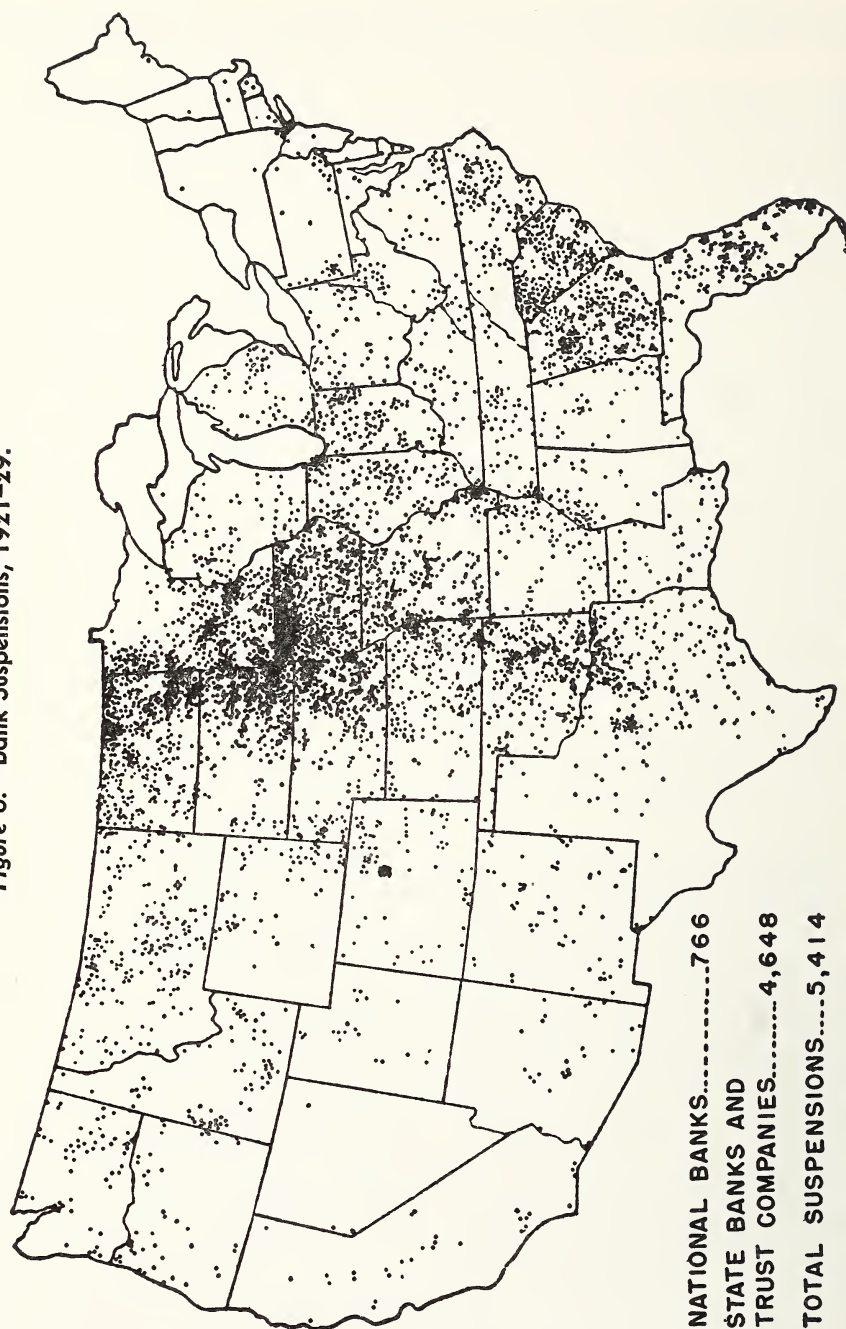
Source: See figures 8 and 9.

and continued deposit withdrawals, particularly when they are accompanied by heavy losses on investments, lead to bank suspensions. Since both bank suspensions and deposit shrinkage showed a definite relationship to distress transfers of farms during the 1920's and 1930's, as shown in figures 6 and 7, these data may be used to reveal area differences in farm financial difficulties.

Suspensions among all active banks from 1921 through 1929 were

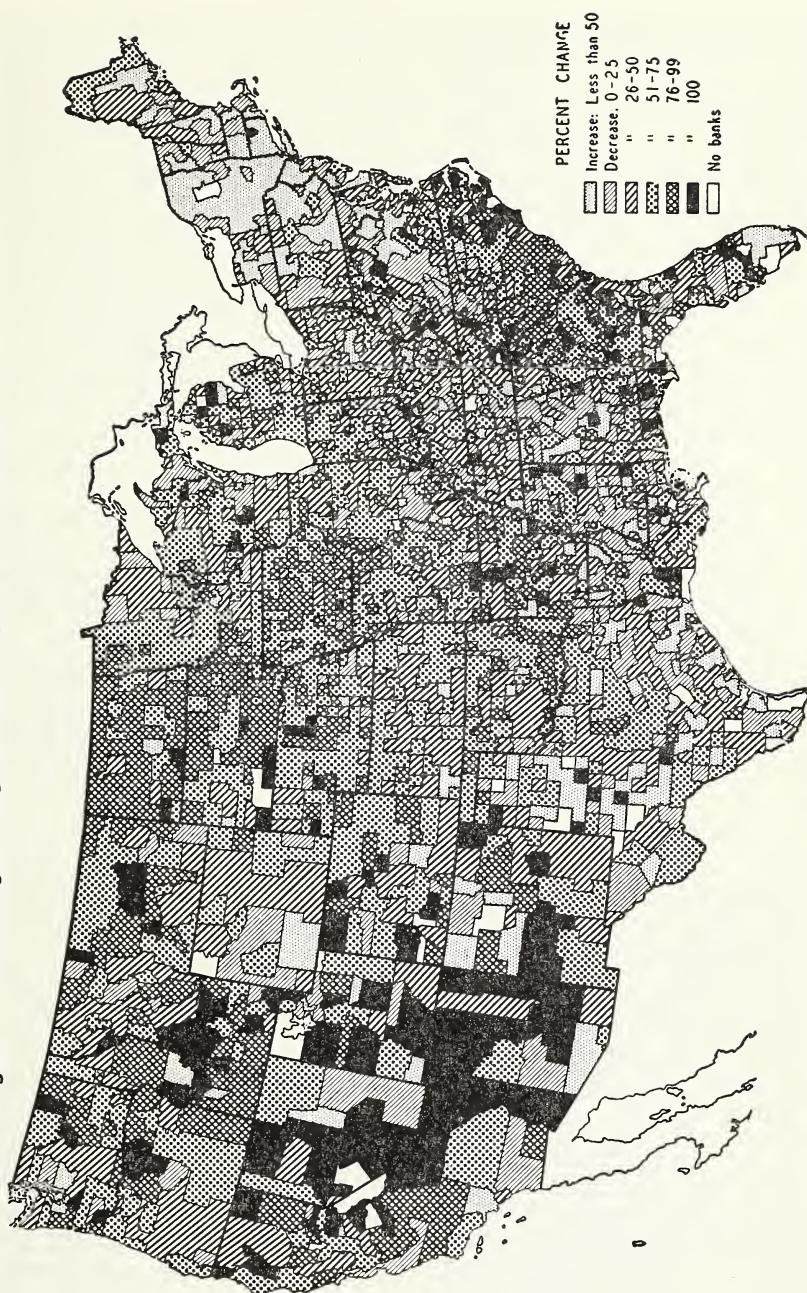
mainly in the predominantly agricultural areas, with heavy concentration in a strip running north and south across the country from North Dakota and Minnesota to eastern Texas (figure 8). South Carolina and Georgia also experienced numerous bank failures. By the end of 1933, when the wave of bank failures had about reached its end, 45.3 percent of the banks, active on June 30, 1920, had suspended operations. Over this period, the bank suspension rate in the Northeast

Figure 8.—Bank Suspensions, 1921-29.



Source: From "Mortgage Lending Experience in Agriculture," an unpublished study of the National Bureau of Economic Research (mimeo., November 1950), by Lawrence A. Jones and David Durand. Map originally prepared by the Board of Governors of the Federal Reserve System.

Figure 9.—Percentage Change in Total Deposits of Commercial Banks, 1920-33.



Source: From "Mortgage Lending Experience in Agriculture," an unpublished study of the National Bureau of Economic Research (mimeo., November 1940) by Lawrence A. Jones and David Durand.

was relatively low, ranging from 7.2 percent in New Hampshire to 29.1 percent in New Jersey. California also had a rate of only 18.3 percent. In contrast, the Dakotas, Iowa, Arkansas, South Carolina, and Georgia rates exceeded 60 percent.

Bank deposits shrank by 50 percent or more in most counties in States with high rates of bank failure, as well as in many parts of the entire Great Plains area, the Mountain States, and the East North Central States. In contrast, a considerable part of the Northeast showed an increase in bank deposits during the same period (figure 9).

Although not included in this report, data on the loss experience of the Federal land banks, the Federal Farm Mortgage Corporation, and life insurance companies show much the same regional differences in losses and in distress loans as described above.

These data emphasize that the experience with farm loans during one period is not necessarily a reliable guide to the experience that may be expected under a different set of economic conditions. More specifically, the low loss rates on PCA loans in certain regions, such as the Great Plains and the Mountain States, do not necessarily mean that these can be classed as low-risk lending areas. Instead, their low PCA loss rates mean only that loan risks in such areas have been low during World War II and postwar inflation periods; years in which there were no widespread crop failures. The records of the 1920's and 1930's indicate that when prices are declining and intermittent crop failures are experienced, losses on farm loans in these same areas have been among the highest in the country.

## Nature and Quality of PCA Loans

The soundness of PCA credit policies and the quality of their loan assets are naturally the very essence of the problem of determining whether there is need for spreading the burden of losses more widely than over individual PCAs. Yet, it is difficult, if not impossible, to measure the quality of loans in precise terms. About all that can be done is to give some indication of those loan characteristics that bear especially on their quality. The two such characteristics on which information is available—the size of loans in relation to association net worth and examiners' ratings—are

discussed in this section of the report.<sup>1</sup>

### Loan Size and Association Net Worth

A matter having an important bearing on the risk problem is the extent to which the loan volume of individual PCAs is in a few large loans, particularly loans that are large relative to the association's net worth. Two PCAs with roughly the same capital may have the same

<sup>1</sup> Data relative to the average size of PCA loans and the distribution of loans by size are given in appendix A for each Farm Credit district and for the United States as a whole.

Table 5.—Percent of outstanding PCA loan balances which exceeded 10 percent of association net worth, for PCAs examined during July, August, and September 1950 <sup>1</sup>

District	Number of PCAs		Loans exceeding 10 percent of net worth in percent of total loans outstanding		
	Total	In sample	Number	Amount	Maximum for any PCA <sup>2</sup>
			Percent	Percent	Percent
1.....	35	17	0.11	1.92	(21.56)
2.....	36	20	.33	7.00	(27.60)
3.....	87	40	.46	9.79	(49.89)
4.....	40	12	.03	.89	(7.44)
5.....	26	13	.12	4.69	(18.91)
6.....	45	11	.14	2.89	(9.54)
7.....	54	21	.21	2.91	(17.53)
8.....	40	16	1.28	15.68	(45.51)
9.....	41	33	1.33	15.16	(78.31)
10.....	36	11	.58	14.00	(30.86)
11.....	30	12	1.59	13.03	(54.44)
12.....	30	13	.95	11.88	(26.15)
Total.....	500	219	.43	8.32	

<sup>1</sup> Does not include any State-wide PCAs.

<sup>2</sup> Data in parentheses show the percent of loans exceeding 10 percent of net worth for the individual PCA in each district with the highest ratio of such loans to total amount of loans outstanding.

average size of loan but their risk problems are very different if one has little variation in the size of individual loans while the other has half of its loan volume represented by a few extremely large loans. The desirability of making unusually large loans can be and has been argued at length. Some PCAs can point to actual experience in which large loans have been not only less troublesome than smaller ones but also a major factor in shifting the association's operations from a loss to a profit. Much evidence of this type can be advanced particularly during a period of profitable farming operations. But granting that the quality of the very large loans of a given PCA may be just as good or even better than that of its smaller loans, the fact remains that any loan may develop weakness and ultimate loss as a result of declining

prices or other factors entirely beyond the control of either the borrower or the lender. The consequences to the financial position of the PCA when this strikes a large loan are naturally very much more serious than when one or more small loans get into difficulty. They are particularly serious when the loan involved is large in relation to the association's net worth. It is for this reason that banking laws limit the size of individual loans to a certain percentage—usually 10 or 15 percent—of capital and surplus.<sup>1</sup> PCAs have no such legal limit, though loans to any one member which exceed 20 percent of the association's capital and guaranty fund must be approved by the produc-

<sup>1</sup> Certain exceptions are made to these rules for loans secured by "actually owned commercial paper," certain types of dealers' notes, notes secured by U. S. Government obligations, bankers' acceptances, warehouse commitments, etc.

**Table 6.—Distribution of PCAs examined during July, August, and September 1950 by the percent of number and amount of loan balances exceeding 10 percent of association net worth at the month end nearest date of examination<sup>1</sup>**

Percent of loans exceeding 10 percent of net worth	District													United States
	1	2	3	4	5	6	7	8	9	10	11	12		
	Number of PCAs													
<i>Percent based on number</i>														
None.....	9	7	16	9	6	6	11	1	3	1				69
0.01-0.99.....	7	9	17	3	6	5	9	6	14	7	5	7		95
1.00-1.99.....	1	2	3		1			4	4	1	3	5		24
2.00-2.99.....		2	1				1	1	5			1		11
3.00-3.99.....			1					1	2	1	1			6
4.00-4.99.....			1					1	3	1				6
5.00-7.49.....			1					1			1			3
7.50-9.99.....								1			1			2
10.00-12.49.....														
12.50-14.99.....														
15.00-17.49.....									1		1			2
17.50 and more.....									1					1
Total.....	17	20	40	12	13	11	21	16	33	11	12	13		219
<i>Percent based on amount</i>														
None.....	9	7	16	9	6	6	11	1	3	1				69
0.01-0.99.....														
1.00-1.99.....														
2.00-2.99.....		1	2	2		1	2							8
3.00-3.99.....	3	4	2		1		1	1	1	1	1	2		17
4.00-4.99.....	2	1			1		2	2	5	1	1			15
5.00-7.49.....	2	1	4	1	2	1	1	3	2	2	2	1		22
7.50-9.99.....		1	1		1	3	2		3	2	1	2		16
10.00-12.49.....			5				1	1	1	1		3		12
12.50-14.99.....			3		1			1	5			2		13
15.00-17.49.....			3						3		1	1		8
17.50 and more.....	1	4	4		1		1	7	10	3	6	2		39
Total.....	17	20	40	12	13	11	21	16	33	11	12	13		219

<sup>1</sup> Excludes State-wide PCAs.

tion credit corporation of the district and loans which exceed 50 percent of the association's capital and guaranty fund must be approved by the Production Credit Commissioner of the Farm Credit Administration in Washington.

Data tabulated for a sample of the PCAs in each district (including all of those examined during July, August, and September 1950, except the State-wide associations) show a wide variation among districts in the percentage of outstanding loans which exceeded 10 percent of the association's net worth (table 5).

Based on the number of loans, the range was from 0.03 percent in Louisville to 1.59 percent in Berkeley. Based on the dollar amount of loans, the range was much wider—from 0.89 percent in Louisville to 15.68 percent in Omaha.

As in many other aspects of their lending operations, individual associations vary considerably in the extent to which their loan volume is concentrated in a few unusually large loans. This may be illustrated by selecting from each district the individual association with the greatest percentage of loan

volume in loans exceeding 10 percent of the association's net worth, and comparing the extent of this concentration in large loans among the several districts. The last column of table 5 shows that the association in the Louisville district having the greatest concentration in large loans had only 7.44 percent of its total loan volume in loans exceeding 10 percent of its net worth. In sharp contrast with this was an association in the Wichita district with 78.31 percent of its total loan volume in loans exceeding 10 percent of its net worth.

Of the 219 PCAs included in table 5, 69 had no loans outstanding which exceeded 10 percent of their net worth; 95 associations had less than 1 percent; and only 3 associations had more than 10 percent of the number of their loans in this category (table 6).

In terms of dollar amount, 15 percent or more of the total loans of 47 associations exceeded 10 percent of the net worth but in 77 associations loans in this class accounted for less than 3 percent of total loan balances. It is again apparent that there are extremely wide variations among districts, and among PCAs within a district, in the extent to which risks of critical losses have been assumed through making loans which are large relative to the association's net worth.

Further, 56 of the 219 associations had one or more loans outstanding which exceeded 20 percent of their net worth. The loans which exceeded 20 percent of net worth accounted for 10 percent or more of total loans outstanding in

30 of these 56 associations. In 6 associations they accounted for 25 percent or more of total loans, and for less than 5 percent in only one association, as shown below:

Percent of outstanding loan balance accounted for by loans exceeding 20 percent of net worth:	Number of PCAs
Less than 5.....	1
5-9.9.....	25
10-14.9.....	12
15-19.9.....	6
20-24.9.....	6
25-29.9.....	1
30-34.9.....	2
35 or more.....	3
Total.....	56

A total of 81 loans for \$6,026,415 exceeded 20 percent of their respective associations' net worth. These loans represented 0.5 percent of the number and 12.2 percent of the amount of loans outstanding in the 56 associations.

### Examiners' Ratings of Loans

The ratings which are given to individual loans by Production Credit Corporation (PCC) examiners at their annual credit examinations provide another basis for judging the quality of PCA loans. At these examinations the credit examiners classify loans into four groups, identified as A, B, C, and D. The significance of these four classifications is indicated by the following very brief descriptions:

"A"—loans with no more than minor weaknesses.

"B"—loans with moderate weaknesses requiring only normal supervision.

"C"—loans with major weakness requiring special supervision.

"D"—loans on which provisions for estimated losses or charge-offs are recommended.

For the country as a whole, the examiners' classification of outstanding loans at the 1949 and 1950 credit examinations were as follows:

cent in number and 20.0 percent in amount in the Berkeley district. The proportion of "A" loans ranged from 11.4 percent of the number in New Orleans to 50.8 percent in Baltimore; and, on an amount basis, from 20.2 percent in Columbia to 51.5 percent in Baltimore.

Based on these same examination

Loan classification by PCC examiners	Percent of loans outstanding			
	1949		1950	
	Number	Amount	Number	Amount
A-----	33.6	33.7	32.1	33.7
B-----	56.2	51.2	57.5	52.6
C-----	9.3	14.1	9.5	12.9
D-----	.9	1.0	.9	.8
Total-----	100.0	100.0	100.0	100.0

While there are recognized differences in the quality of "C" and "D" loans, there are grounds for combining the two groups for purposes of this report. First, in both cases examiners have called attention to the presence of definite risk elements. In the case of "D" loans specific reserves for losses or actual charge-offs are recommended while in the judgment of the examiners losses may be avoided on "C" loans only through special supervisory attention. A second reason for combining the groups may be found in the supposition that under less favorable circumstances the "D" group would be augmented primarily from the "C" group.

There are wide variations in the proportion of "C" and "D" loans among the 12 Farm Credit districts. They ranged from 5.2 percent in number and 7.8 percent in amount in the Louisville district to 16.4 per-

cent in number and 20.0 percent in amount in the Berkeley district. The proportion of "A" loans ranged from 11.4 percent of the number in New Orleans to 50.8 percent in Baltimore; and, on an amount basis, from 20.2 percent in Columbia to 51.5 percent in Baltimore. Based on these same examination ratings, there were extremely wide variations among individual PCAs in the proportion of "C" and "D" loans. Of the 500 associations, only 5 had no "C" or "D" loans while 58 had 20 percent or more of the number of their loans in these two categories (table 7). Of these 58 associations, 43 were located in the Columbia, New Orleans, St. Louis, and Berkeley districts. No associations in the Louisville and Houston districts had as many as 16 percent of their loans in these two classifications.

Similar comparisons on an *amount* basis show even wider differences among individual PCAs (table 8). For the country as a whole, 111 associations had 20 percent or more of their loans in the "C" and "D" categories, and in 33 associations the proportion exceeded 30 percent. Thus, from a compari-

Table 7.—Distribution of PCAs by the percent of the number of outstanding loans classified as C or D at the 1950 PCC credit examination

Percent of number of loans classified C or D	District												United States
	1	2	3	4	5	6	7	8	9	10	11	12	
	Number of PCAs												
None-----	2	1	3	4	1	1	1	1	1	1	1	1	5
0.1-1.9-----	1	1	3	4	1	1	2	2	2	1	3	3	16
2-3.9-----	1	3	4	11	1	1	2	3	2	1	2	2	29
4-5.9-----	1	8	9	12	2	4	7	7	1	9	1	4	58
6-7.9-----	6	8	10	7	2	4	6	7	8	13	4	4	79
8-9.9-----	3	6	11	2	5	10	4	4	6	5	4	4	60
10-11.9-----	7	5	9	3	4	6	8	4	3	1	4	6	60
12-13.9-----	5	2	6	1	1	8	10	8	7	2	4	2	56
14-15.9-----	1	1	6	1	2	13	2	4	3	3	3	3	38
16-17.9-----	4	2	2	2	2	4	4	2	1	1	1	1	20
18-19.9-----	3	1	5	2	2	2	2	1	1	5	1	1	21
20-21.9-----	2	1	2	3	1	2	2	3	1	2	2	1	17
22-23.9-----	1	2	1	1	1	1	1	1	1	1	1	1	6
24-25.9-----	1	1	6	1	1	1	1	1	1	1	1	1	8
26-27.9-----	1	1	3	1	2	1	1	1	1	1	1	1	6
28-29.9-----	1	1	1	1	1	1	1	1	1	2	1	1	3
30-39.9-----	1	1	5	2	3	1	1	1	1	1	1	1	13
40-49.9-----	1	1	3	1	1	1	1	1	1	1	1	1	4
50 and more-----	1	1	1	1	1	1	1	1	1	1	1	1	1
Total-----	35	36	87	40	26	45	54	40	41	36	30	30	500

Table 8.—Percent of the amount of outstanding loans classified as C or D at 1950 PCC credit examinations by districts

Percent of amount of loans classified as C or D	District												United States
	1	2	3	4	5	6	7	8	9	10	11	12	
	Number of PCAs												
None.....	2	1	3	4	1	1	1	1	1	1	1	1	5
0.1-1.9.....	1	2	4	3	1	1	1	3	3	1	1	2	20
2-3.9.....	1	1	6	8	1	1	1	3	3	3	2	1	29
4-5.9.....	1	5	11	10	4	1	2	4	1	1	1	4	42
6-7.9.....	1	9	9	5	2	1	2	6	6	4	1	1	46
8-9.9.....	2	10	3	1	2	4	3	4	3	5	2	3	42
10-11.9.....	3	5	7	4	5	5	3	3	2	9	1	3	50
12-13.9.....	5	1	5	3	1	5	7	4	4	4	2	2	42
14-15.9.....	7	1	5	3	1	4	8	1	4	3	2	3	42
16-17.9.....	1	1	5	1	1	3	9	4	2	3	3	3	35
18-19.9.....	5	1	5	1	3	8	5	3	1	1	1	3	36
20-21.9.....	3	1	3	1	2	2	7	1	2	1	2	1	23
22-23.9.....	1	1	1	1	2	1	5	2	3	1	1	1	18
24-25.9.....	3	1	5	1	1	2	2	2	2	2	1	1	16
26-27.9.....	1	1	4	1	1	2	1	1	2	1	3	1	12
28-29.9.....	1	1	1	1	1	3	1	1	1	3	1	1	9
30-39.9.....	1	1	6	1	2	2	2	2	2	4	1	1	21
40-49.9.....	1	1	5	1	1	2	1	1	1	1	1	1	10
50 and more.....	1	1	1	1	1	1	1	1	1	1	1	1	2
Total.....	35	36	87	40	26	45	54	40	41	36	30	30	500

**Table 9.—Relationship of percent of amount of outstanding PCA loans classed as C or D to reserves, Dec. 31, 1950**

Percent of loans classed as C or D, based on amount <sup>2</sup>	Number of PCAs	Reserves Dec. 31, 1950, in percent of maximum loans outstanding in preceding 5 years <sup>1</sup>		
		Provisions for bad debt losses <sup>3</sup>	Accumulated earnings	Total reserves
Less than 5.05-----	72	0. 24	10. 8	11. 0
5-9. 9-----	111	. 27	10. 6	10. 9
10-14. 9-----	114	. 42	10. 2	10. 6
15-19. 9-----	91	. 28	10. 1	10. 4
20-24. 9-----	49	. 52	10. 5	11. 0
25-29. 9-----	29	. 57	11. 4	12. 0
30 and more-----	33	1. 16	9. 3	10. 5
Total-----	<sup>4</sup> 499	. 37	11. 7	12. 1

<sup>1</sup> All except the "Total" line are unweighted averages of the relative reserves for individual associations. They are lower than would result from weighted averages obtained from totals of the dollar amount because the larger associations generally have reserves which are larger relative to outstanding loans than the small associations.

<sup>2</sup> Based on 1950 examinations by PCC credit examiners.

<sup>3</sup> Includes provision for losses on property acquired in liquidation of loans.

<sup>4</sup> Puerto Rico not included.

son of distributions based on the number and amount of "C" and "D" loans, it is apparent that a few associations in each district have some large loans with recognized weaknesses. Such loans could curtail the credit services of the associations, either temporarily as a result of their becoming ineligible for rediscount with the Federal Intermediate Credit Bank (FICB) or through losses which would seriously weaken the association's financial strength. These data emphasize the differences that exist among PCAs within each district with respect to the quality of loans, and thus in the risk which they entail. Some of the differences among districts revealed by tables 7 and 8 may result from differences in the standards used by different credit examiners but this factor could

account for little if any of the differences among PCAs in a given district.

These data on the proportion of "C" and "D" loans take on added significance when related to the reserves available to offset losses. Except for the group of 33 associations with "C" and "D" loans equal to 30 percent or more of total loans outstanding at time of the 1950 credit examination, the associations with a large proportion of "C" and "D" loans had made only slightly larger provision for bad debt losses at December 30, 1950, than those with less than 5 percent of their loans in the "C" and "D" categories (table 9). Furthermore, surplus reserves (accumulated earnings) also showed no tendency to increase as the proportion of "C" and "D" loans increased.

## Capital and Surplus Position of PCAs

### Total Net Worth

Since their establishment with capital provided principally by the Federal Government, PCAs have made substantial progress toward their goal of complete farmer-member ownership. As of January 2, 1951, a total of 176 PCAs were completely member-owned. For all associations combined member-owned capital stock amounted to \$71,144,721 and Government capital, as represented by PCC-owned class A stock, to only \$15,728,250 or 18.1 percent of the total. In addition to the progress they have made in repaying Government capital, PCAs had accumulated earnings of \$63,868,514 by the close of 1950, giving them a total net worth of \$150,741,485.

The use of earnings and proceeds from sale of class A stock to members to retire Government capital has prevented associations from adding rapidly to their capital accounts, with the result that at the close of 1950 their total capital was only 16.5 percent larger than in 1942. Yet during this same period the volume of their loans outstanding, measured at annual peaks, increased 119 percent. Since a given amount of net worth will support only a certain volume of loans, whether the net worth is represented by Government capital or by member-owned stock and accumulated earnings, it is apparent that the PCAs are less adequately capitalized now than was the case in 1942. The ratio of maximum loans

outstanding to total net worth increased steadily from 1942 to 1949, rising from 1.9 to 1 in 1942 to 3.7 to 1 in 1949. A small reduction came in 1950, when the ratio fell to 3.6 to 1. It should be borne in mind, however, that the funds employed to retire Government capital have been returned to a revolving fund which, under present arrangements at least, may, in case of need, be utilized to buttress the capital position of the system.

As with other measures of association strength, there is considerable variation among districts with respect to the ratio of loans to net worth. In 1950, individual districts showed a range from 3.1 to 1 in Berkeley to 4.5 to 1 in Omaha. Individual PCAs showed a much wider range: in 18 of the 500 PCAs the loan to net worth ratio was less than 3 to 1, but 57 associations had ratios of 5 to 1 or higher (table 10). Wide differences in ratios are characteristic of associations in each of the Farm Credit districts.

### Surplus (Accumulated Earnings)

The surplus portion of total net worth serves, of course, as a cushion to absorb unexpected losses, over and above the valuation reserves set aside against specific assets, and thus to forestall impairment of capital stock. As of December 31, 1950, PCAs had accumulated earnings of \$63,868,514—11.7 percent of their maximum loans outstanding during 1950. This compares with a peak of 12.9 percent in 1945 and with 10.1 percent in 1942.

Table 10.—Distribution of PCAs by ratio of maximum loans outstanding in preceding 5 years to net worth, Dec. 31, 1950<sup>1</sup>

Maximum loans outstanding in multiples of total net worth	District												United States
	1	2	3	4	5	6	7	8	9	10	11	12	
	Number of PCAs												
2.5 or less-----		1	1					2		1		2	7
2.6-----			1			1							2
2.7-----		1	1										2
2.8-----		1	1						1		1		4
2.9-----		1								1	1		3
3.0-----	1		2		1	1						1	6
3.1-----			3		1	2	1	1			1	2	12
3.2-----			4	1					4	1			10
3.3-----	1		4		1			1	1	1			9
3.4-----		1	3			1	1	1	2	1	2		12
3.5-----	4	3	6		1	2	2	2	2	3	5	2	32
3.6-----	1	2	5	2	1		2	1	1	4	2	1	22
3.7-----	1		4	1		2	5	1	5	3	4	1	27
3.8-----		3	7	1	3	1	2	2	2	4	1	1	27
3.9-----	1	4	7	1	2	5	2		3	2		2	29
4.0-----	3	1	3	3	1	4	1	1	1		2		20
4.1-----	1	6	5	3	1	2	8	2	1	5	2	2	38
4.2-----	4	4	4	8	1	3	8		2	3	2	2	41
4.3-----	3	1	2	1	1	3	3	2	2		3		21
4.4-----	3	1	8	3	3	3	6	2	1	1	1	3	35
4.5-----	3	2	4				4	1	2	1		1	18
4.6-----	1	2	1	2		2	2	3	1	2	3		19
4.7-----	6	1	1	5	2	2	3	2	2			1	25
4.8-----	1	1	3		1	1		2	1	1		1	12
4.9-----			3	2		1	1		3				10
5.0-5.4-----			2	7	4	6	3	8	3	2		8	43
5.5-5.9-----						3		4	1				8
6.0 and over-----			2		2			2					6
Total-----	35	36	87	40	26	45	54	40	41	36	30	30	500

<sup>1</sup> Net worth before "general provision for undetermined losses in tax-paying associations."

As with the ratio of maximum loans outstanding to total net worth, the cushion of accumulated earnings relative to loan volume varies widely among districts and individual associations in each district. For individual districts, the range in 1950 was from 8.7 percent in Louisville to 15.3 in Berkeley. For the country as a whole, 28 PCAs had accumulated earnings equal to less than 7 percent of their maximum loans outstanding during the preceding 5 years while 21 had 16 percent or more (table 11).

A comparison of data on accumulated earnings relative to maxi-

imum loans outstanding with the record of PCA loss experience to date would indicate that, with a few possible exceptions, the associations are in a strong position to meet losses in excess of those that would be covered by specific valuation reserves. However, when reference is made to the loss experience of commercial banks and of agricultural credit corporations during the past 30 years, it would appear that an extended period of even moderately unfavorable economic conditions in agriculture, such as 1923-29 or 1937-40, could result in losses that would be high relative to the accumulated earnings of many PCAs.

Table 11.—Distribution of PCAs by the percent of their total accumulated earnings at Dec. 31, 1950, to their maximum loans outstanding in the preceding 5 years<sup>1</sup>

Percent of accumulated earnings to maximum loans outstanding	District													United States
	1	2	3	4	5	6	7	8	9	10	11	12		
	Number of PCAs													
Less than 5.0.....				1	1	1		1				1	4	
5-5.9.....				2	1		1	1				1	6	
6-6.9.....				5		4	1	5		1	1	1	18	
7-7.9.....	5	1	3	10	2	5	5	4	1	3		1	40	
8-8.9.....	6	3	16	9	5	12	12	6	3	7	1	4	84	
9-9.9.....	5	4	14	7	3	11	10	7	5	7	1	7	81	
10-10.9.....	6	7	11	3	2	7	7	4	13	6	5	6	77	
11-11.9.....	7	4	19	2	1	1	6	3	6	4	7	2	62	
12-12.9.....	3	6	9	1	6	2	2	6	3	3	2	1	44	
13-13.9.....	2	4	7		2	1	4	2	5	1	3	3	34	
14-14.9.....		3	3		2		3	1	1	2	2		17	
15-15.9.....		1	3		1		1		1		5		12	
16-16.9.....			1				1				2		4	
17-17.9.....			1						1			1	3	
18-18.9.....		1				1	1		1	1			5	
19-19.9.....														
20-24.9.....	1	2						1	1		1	1	7	
25 and more.....										1		1	2	
Total.....	35	36	87	40	26	45	54	40	41	36	30	30	500	

<sup>1</sup> Earnings are before "general provision for undetermined losses in tax-paying associations."

## Income Position of PCAs

It is not the purpose of this report to present a detailed analysis of differences in the income position of production credit associations and related factors, such as loan volume, size of loans, rate of income from loans, operating efficiency, adequacy of capital, extent of subsidy in the form of free Government capital, etc. Rather its main objective is to show what the income record of the associations has been, and particularly how this record has varied among associations as an indication of their ability to withstand future losses on loans. These same data will serve also to indicate the capacity of the production credit system to support a cooperative program designed to spread the risks of loss more widely than among

the stockholders of a single association.

Prior to 1947, interest rates on PCA loans were uniform throughout the country. This, however, did not mean that PCA rates of gross income on loans were uniform, since there were substantial differences in the service fees charged by individual associations. As shown by district averages of gross income per \$100 of average loan balance outstanding, the effective interest rate on loans has varied widely among districts (table 12). In other words, loan-service fees have been used in varying degrees in different districts to provide additional income. For example, in the Springfield and Omaha districts the rate of gross loan income per \$100 of average

Table 12.—PCA gross loan income per \$100 average balance of loans outstanding, by districts, 1936-50<sup>1</sup>

Year	District													United States
	1	2	3	4	5	6	7	8	9	10	11	12		
	Gross loan income per \$100 of loans outstanding													
1936	\$5.60	\$6.15	\$7.65	\$6.43	\$7.26	\$6.79	\$6.17	\$5.62	\$5.93	\$6.88	\$5.68	\$5.71	\$6.30	
1937	5.56	6.61	8.27	6.52	8.59	6.69	6.29	5.71	5.93	5.95	5.82	5.73	6.34	
1938	5.40	6.29	7.22	6.37	7.55	6.54	6.11	5.69	6.01	5.89	5.68	5.60	6.13	
1939	5.10	6.13	6.83	5.89	7.00	5.97	5.91	5.34	5.70	5.67	5.48	5.48	5.84	
1940	4.88	5.82	6.50	5.60	6.54	5.77	5.61	5.06	5.35	5.36	5.27	5.18	5.56	
1941	4.81	5.56	6.39	5.49	6.17	5.56	5.47	4.94	5.22	5.16	5.20	5.21	5.42	
1942	4.76	5.27	6.03	5.37	5.81	5.44	5.28	4.86	5.18	5.06	5.08	4.96	5.26	
1943	4.76	5.41	6.06	5.28	5.89	5.37	5.05	4.77	5.14	5.11	5.04	4.99	5.24	
1944	4.73	5.38	5.89	5.26	5.77	5.34	5.07	4.76	5.14	5.23	4.99	5.04	5.24	
1945	4.71	5.36	5.92	5.30	5.82	5.32	5.10	4.75	5.24	5.46	5.02	5.04	5.28	
1946	4.71	5.32	5.93	5.32	5.82	5.39	5.19	4.75	5.20	5.51	5.01	4.98	5.30	
1947	4.70	5.27	6.07	5.33	6.01	5.53	5.22	4.74	5.18	5.69	5.20	5.05	5.38	
1948	5.07	5.52	6.55	5.53	6.28	5.86	5.56	4.64	5.31	6.15	5.26	5.40	5.64	
1949	5.45	5.86	7.15	5.95	6.54	6.23	6.13	5.29	5.57	6.63	5.32	5.58	6.04	
1950	5.58	5.88	7.25	5.97	6.64	6.26	6.17	5.31	5.60	6.56	5.43	5.58	6.07	

<sup>1</sup> Gross loan income consists of gross interest on loans (less patronage refunds) and loan service fees, including fees paid for abstracts, filing, etc.

Table 13.—Distribution of PCAs by 1950 rate of gross loan income per \$100 of average loan balance outstanding during the year, by districts<sup>1</sup>

Gross loan income per \$100 average balance of loans out- standing	District												United States
	1	2	3	4	5	6	7	8	9	10	11	12	
	Number of PCAs												
Less than \$5.00-----	1	-----	-----	1	-----	-----	-----	4	-----	1	6	-----	13
\$5.00-\$5.49-----	8	4	-----	2	-----	4	1	11	11	4	7	9	61
\$5.50-\$5.99-----	23	20	1	17	5	11	9	23	25	3	14	16	167
\$6.00-\$6.49-----	2	9	12	17	4	12	41	2	5	6	3	3	116
\$6.50-\$6.99-----	1	3	26	3	10	4	2	-----	-----	8	-----	2	59
\$7.00-\$7.49-----	-----	-----	29	-----	6	8	1	-----	-----	5	-----	-----	49
\$7.50-\$7.99-----	-----	-----	12	-----	1	4	-----	-----	-----	3	-----	-----	20
\$8.00 and more-----	-----	-----	7	-----	-----	2	-----	-----	-----	6	-----	-----	15
Total-----	35	36	87	40	26	45	54	40	41	36	30	30	500

<sup>1</sup> Gross loan income consists of gross interest on loans (less patronage refunds) and loan service fees, including fees paid for abstracts, filing, etc.

loan balance outstanding did not exceed \$5.75 during 1936-39 when the interest rate was 5 percent, which meant that the loan-service fees averaged less than three-fourths of 1 percent of loans outstanding. In contrast, in the Columbia and New Orleans districts during the same period gross loan income per

\$100 of average loan balance outstanding exceeded \$7, and in 1937 reached \$8.59 in the New Orleans district.

During 1938-39, and also from 1940 to 1946, when PCA interest rates were uniformly 4½ percent, there was substantial reduction in loan service fees, as indicated by the

**Table 14.—PCA annual net earnings, before losses and patronage refunds, in percent of the average amount of loans outstanding for the year, by districts, 1936–50**

Year	District													United States
	1	2	3	4	5	6	7	8	9	10	11	12		
	Net earnings in percent of average amount of loans outstanding													
1936-----	1.68	2.22	3.00	2.75	3.75	2.92	2.08	2.73	2.74	2.44	2.10	2.75		2.62
1937-----	2.06	2.95	2.84	2.13	3.94	2.35	1.87	2.56	2.69	2.66	2.86	2.63		2.58
1938-----	2.38	2.70	2.55	1.92	3.25	1.77	1.71	2.52	2.47	2.64	2.70	2.51		2.38
1939-----	2.32	2.78	2.44	1.66	3.33	1.91	1.75	2.50	2.47	2.43	2.67	2.48		2.33
1940-----	2.30	2.51	2.28	1.45	3.21	1.78	1.79	2.37	2.48	2.27	2.63	2.51		2.24
1941-----	1.82	1.91	1.97	0.73	2.33	1.31	1.32	1.84	2.07	1.38	2.34	2.24		1.71
1942-----	1.35	1.48	1.92	0.41	1.76	1.14	0.61	1.55	1.76	0.91	2.03	1.80		1.35
1943-----	1.21	1.57	2.00	0.92	1.98	1.18	1.23	1.74	1.72	1.19	2.22	2.10		1.54
1944-----	1.28	1.72	1.94	0.92	2.02	1.03	1.11	1.44	1.68	1.46	2.01	1.85		1.51
1945-----	1.20	1.73	1.91	0.93	1.71	1.16	1.14	1.44	1.63	1.53	1.98	1.78		1.51
1946-----	1.29	1.81	2.02	1.08	1.97	1.21	1.05	1.36	1.74	1.77	1.74	1.74		1.56
1947-----	1.36	1.79	2.69	1.33	1.94	1.52	1.24	1.43	1.84	2.02	1.74	1.77		1.70
1948-----	1.58	2.00	2.36	1.65	2.02	1.97	1.44	1.68	2.07	2.06	1.63	1.79		1.87
1949-----	1.59	2.01	2.55	1.65	2.20	1.99	1.63	1.94	2.06	2.27	1.51	1.81		1.95
1950-----	1.54	2.09	2.58	1.57	2.33	1.96	1.75	1.58	1.89	1.86	1.47	1.68		1.87

decline of more than \$1 in the rate of gross loan income for the country as a whole.

Differences among districts in interest rates charged borrowers by PCAs were introduced during 1947 as a result of differences in FICB discount rates, but it was not until January 1, 1948, that individual associations within a district were authorized to charge different rates. Under this authorization, rates could range from 3 to 4 percent above the FICB discount rate. As a result, interest rates were increased by many associations to offset rising costs of operations and also in order to build up reserves more rapidly. These changes, plus increases occasioned by higher FICB discount rates, resulted in a rise in gross loan income per \$100 of average loan balance outstanding to \$6.07 in 1950 for the country as a whole. By districts, the range was \$5.31 in Omaha to \$7.25 in Columbia.

For individual PCAs, gross loan income in 1950 per \$100 of average loan balance outstanding ranged from \$4.01 to \$9.09. In 35 associations the rate amounted to \$7.50 or more, and in 13 associations it was less than \$5 (table 13). All except one of the 35 associations with gross loan income rates of \$7.50 or more were in the Columbia, St. Louis, and Houston districts.

For the country as a whole, net PCA earnings during 1950 (before losses and patronage refunds) amounted to \$8,873,779, or 1.87 percent of the average amount of loans outstanding during the year. In other words, the system had this amount available from 1950 operations to provide for losses (actual and anticipated), to pay dividends and patronage refunds, and to strengthen its financial position. The 1950 rate of net earnings represents an increase of 38 percent from the low point reached in 1942, but is somewhat lower than the

**Table 15.—Distribution of PCAs by the percent that 1950 net earnings, before losses and patronage refunds, were of the average amount of loans outstanding in 1950**

Net earnings in percent of average loans outstanding	District												United States
	1	2	3	4	5	6	7	8	9	10	11	12	
	Number of PCAs												
Less than 0.50.....			1		1		1				2		5
0.50-0.99.....	4			4		3	4	2		2	2	1	22
1.00-1.19.....	2			3	1		5	5	2	4	7	3	32
1.20-1.39.....	8	2	6	6	2	3	9	1	5	3	3	4	52
1.40-1.59.....	3	4	4	7		5	5	11	3	4	9	3	62
1.60-1.79.....	3	6	7	11		10	15	6	11	7	4	6	86
1.80-1.99.....	5	2	6	5	6	3	7	7	7	8	1	6	63
2.00-2.19.....	2	3	6	2		7	6	2	4	4	1	4	41
2.20-2.39.....	5	7	7	2	3	1	2	3	4	2	1	1	38
2.40-2.59.....		7	18		3	2		3	3			1	37
2.60-2.79.....	1	3	8		2	3			2			1	20
2.80-2.99.....	1	2	7			2				1			13
3.00-3.99.....	1		16		4	6				1			28
4.00 and more.....			1										1
Total.....	35	36	87	40	26	45	54	40	41	36	30	30	500

range from 1936 to 1940 of 2.24 to 2.62 percent (table 14). Net earnings for 1950 amounted to six times the net charge to earnings for losses on loans and acquired property during the year, and exceeded total losses from organization to date by 38 percent.

For individual districts, 1950 net earnings (before losses and patronage refunds) ranged from 1.47 percent in Berkeley to 2.58 percent in Columbia. In all districts except Berkeley and Spokane, the rate of net earnings during recent years has tended to increase from the low points reached during the early or middle 1940's. In these two districts, however, the 1950 rate was the lowest recorded during the past 15 years.

Although the PCA system taken as a whole, or on an individual district basis, has shown a sustained

record of net earnings over the past 15 years, the important consideration from the standpoint of the need for a wider spreading of risks is the earnings record of individual PCAs. A high average rate of earnings for a district may mean little to the individual association in covering its losses. Data on 1950 net earnings (before losses and patronage dividends) show that 27 individual associations had a net earning rate of less than 1 percent of average loans outstanding during that year. At the other extreme, there were 29 associations with net earnings of 3 percent or more (table 15). All districts experienced wide differences in net earnings among individual associations in 1950. Based on data shown earlier on accumulated earnings to 1950 (table 11), this condition would seem to be typical of the system throughout its history.

## Summary and Conclusions

The analysis of the loss experience of production credit associations and other farm lending institutions may be summarized as follows:

(1) PCAs have had a favorable loss experience from organization to date. System-wide losses have been only 0.09 percent of total cash advanced through 1950. Only 8 of the 688 associations organized since 1933 have been liquidated primarily because of actual or anticipated losses, and only 9 additional associations have sustained temporary impairment of class B stock.

(2) It would be a mistake to conclude from experience to date, however, that production credit associations could maintain an equally good experience under less favorable circumstances than have prevailed since their organization. Institutions making production loans to farmers, such as national banks and agricultural credit corporations, which have had records of loss experience in recent years equally as favorable as those recorded by production credit associations, sustained heavy losses in earlier years when economic conditions were less favorable. Losses of these lenders were heaviest, of course, during the early 1930's but they were by no means confined to this period.

(3) Even during the period of PCA operations, there have been years in which losses have been very much higher than those indicated by the over-all experience of the system since its organization.

(4) Loss experience among PCAs has varied widely among regions and among the associations of the several districts. Furthermore, the regions in which PCA loss experience has been most favorable in recent years are in many cases the ones in which the heaviest losses were sustained by lenders in earlier periods.

(5) Production credit associations have made commendable progress in the retirement of Government capital, but this use of earnings and proceeds from the sale of class A stock to members has necessarily lessened their ability to build up capital and reserves. In fact, as a result of more rapid increases in loan volume than in net worth, the consolidated balance sheet of production credit associations reveals a somewhat weaker capital position today than in the early 1940's. While the retirement of Government capital has restricted the ability of associations to accumulate net worth, funds returned to the United States Treasury have been paid into a revolving fund which, under present arrangements at least, may be made available for use by the production credit system in the event of capital stringency.

(6) With respect also to their accumulated reserves relative to loans outstanding, production credit associations are hardly better situated today than they were 8 years ago. Total accumulated reserves of the system expressed as a percentage of the maximum amount

of loans outstanding stood at 10.1 percent in 1942 and in 1950 were 11.7 percent. Individual associations differ widely, one from another, in their ability to absorb losses on loans.

(7) While the quality of PCA loans as a whole appears good, there also appear to be points of weakness. Particularly, some associations have substantial proportions of their resources invested in relatively large loans which, while they are currently in good condition, could create acute difficulties under less favorable conditions. Also, there are wide differences in the frequency with which loans of "C" and "D" grade are found in the portfolios of individual associations.

(8) With the exception of a relatively few associations, the current earnings position of the production credit system as a whole is a favorable one. Net earnings (before losses and patronage refunds) during 1950 were 1.87 percent of the average amount of loans outstanding for the system as a whole.

On the basis of these findings concerning the loss experience and current financial position of PCAs, the following conclusions may be drawn on the general problem of losses:

(1) High loss rates on loans to

farmers have been closely associated in the past with unfavorable prices and climatic conditions. If these should recur in the future, PCAs might have to absorb losses at considerably higher levels than those experienced since the organization of the system. The ability of associations to absorb these losses (which will vary greatly from one association to another) will depend upon (a) the amount of reserves they have accumulated and (b) on whether these reserves are employed by individual associations or on some cooperative basis.

(2) The experience of the system and the experience of other farm lending institutions in earlier and less favorable years, clearly indicate that the severity of loss experience will vary considerably from one district to another and even from one association to another within the same district. It would be difficult, of course, for the production credit system as a whole to fortify itself to the point where it can withstand, without external help, long periods of widespread farm distress. Nonetheless, important and useful measures can be adopted to strengthen the system's ability to cope successfully with less general and less prolonged difficulties.

## Part II

### Some Alternative Methods of Risk-Bearing Available to PCAs

AS indicated in the introduction to this report, the committee did not conceive its function to be that of exploring in detail all possible methods of risk-bearing available to PCAs or of recommending the adoption of a particular method. Rather, its job was that of exploring a few key alternatives involving substantially different approaches to the risk problem with a view to stimulating thought and discussion. Detailed studies of legal, financial, and operational problems under various alternatives and decisions as to what steps, if any, shall be taken with a view to improving the ability of PCAs to successfully deal with risks in agricultural lending are clearly a matter for the Farm Credit Administration and the members, directors, and officers of production credit associations.

Three principal approaches might be taken to the risk-bearing problem. First, the system might con-

tinue under its present form of organization and present policies, leaving the problem of risk-bearing to individual associations with such help as may be provided by U. S. Government subscriptions to class A stock. A second possible approach is to make no basic change in the present form of organization of the production credit system, but to devise a means of spreading risks on a district, regional, or national basis through some form of cooperative action on the part of PCAs. A third possible approach would involve substantial changes in the organization and risk-sharing policies of lending institutions operating under the supervision of the Farm Credit Administration. These approaches are dealt with briefly in the remaining part of this report. It is possible, of course, that more than one of the methods described might be employed concurrently as parts of an over-all program for dealing with risks.

#### Method I: Strengthening the Financial Positions of PCAs Without Changing Present Organization or Procedures

The capacity of individual production credit associations to absorb losses without impairing capital or interrupting their services to the farming community may be increased by continuing present programs to strengthen their capital and reserve positions. This can be accomplished, furthermore, without any change in the present organization of the production credit system

or in present procedures for absorbing losses on loans.

As was pointed out in part I of this report, at the present time there are wide differences in the ability of individual associations to withstand losses. For example, on December 31, 1950, there were 4 associations with total accumulated earnings equal to less than 5 percent of their maximum loans outstanding during

the preceding 5 years and 233 associations with accumulated earnings equal to less than 10 percent of maximum loans outstanding during this period (table 11). On the other hand, there were 33 associations in which accumulated earnings on December 31, 1950, were equal to 15 percent or more of their maximum loans outstanding in the preceding 5 years. It is possible, of course, that heavy losses may be borne by associations with relatively large reserves and that associations with small reserves will have only light losses. However, it is also possible for the reverse to be the case and for associations with small reserves to have heavy losses. Such associations might well be in serious financial difficulty in the event of even a moderate decline in agricultural prices, or 2 or 3 years of poor crops. In the light of these possibilities, it appears that a number of associations need to increase their reserve accounts on some programmed basis if they are to weather even a moderate price decline or other unfavorable developments.

The methods by which an individual association can improve its financial position are the same as those available to an individual commercial bank, agricultural credit corporation, or other lending institution operating in a limited territory. First, it can make a determined effort to eliminate from its portfolio any high-risk loans it may have and to avoid extending such credits in the future. Particularly, PCAs can and should exercise caution in making loans that are large in rela-

tion to typical loans in the territories in which they operate or which are large in relation to their accumulated reserves and capital.<sup>1</sup>

Second, in selecting their loans, individual associations can strive to obtain the highest degree of diversification consistent with the adequate performance of their functions as suppliers of credit to their respective communities. It was pointed out in part I that acute financial difficulties among PCAs have been limited, for the most part, to associations operating in very specialized farming areas. A high degree of risk concentration is almost inevitable in such situations, but not wholly so. Specific possibilities for achieving greater diversification will be evident in many situations of this sort and should be vigorously pursued.

Third, every effort should continue to be made to keep operating costs at a minimum and, where necessary, to increase interest rates or service charges. Action along these lines will, by improving the net income position of associations, permit a more rapid build-up of reserves and earned surplus. In this connection it may be pointed out that the device of lowering per unit lending costs and improving net income by making unusually large loans involves hazards for the association. Each association faces the difficult task of balancing the low unit operating cost of large loans against the special risks which they entail.

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<sup>1</sup> The average or typical size of loan will vary widely among associations depending upon the types of farming which predominate in the territories in which they operate.

Fourth, a conservative dividend policy must be followed, at least until reserves and surplus have been accumulated to levels that can be regarded, on prudent grounds, as adequate for the risks involved in the individual association's portfolio.

Finally, associations may strengthen their capital position by selling additional stock to members. However, this may call for a new type of security, such as preferred stock on which dividends can be paid without necessarily paying dividends on class B stock. A proposal along these lines has been under discussion in the Farm Credit Administration for some time and warrants very careful consideration.

Since their organization in the early 1930's, a continuing effort has been made by production credit associations to improve their financial positions, working along the lines described above with the help of the PCCs and the Farm Credit Administration. While some associations are in relatively strong financial position others are not and there is a distinct possibility that a substantial number of PCAs may experience financial difficulties in even a moderate decline in agricultural prices or a series of poor crop

years. Indeed, in terms of their consolidated balance sheet, production credit associations as a group are in no better position to absorb losses today than they were 10 years ago. This arises, as pointed out in part I, from the use of a large share of net earnings and new capital funds to retire Government capital, and does not take account of the possibility of drawing on the U. S. Treasury revolving fund for additional capital in case of need. This possibility raises a number of questions, however. Drawing upon the revolving fund for additional capital to support an increased volume of discounts in cases where this is necessary to meet the legitimate credit needs of agriculture is one thing. Providing an association with Government capital for the primary purpose of providing earnings to absorb losses is quite another matter. A question also may be raised as to whether it is sound policy to depend upon the use of Government capital any longer than is absolutely necessary. Such capital may not always be available or in the future may not be provided in amounts sufficient to meet the needs of the production credit system.

## **Method II: Establishing a Mutual Loan Insurance Reserve for Spreading Risks**

A program, such as outlined in method I, does not spread risks. It merely increases the capacity of individual associations to withstand losses on their own loans. It is possible, however, to spread risks

through some kind of group or co-operative action. A number of plans which have the effect of spreading risks have been employed in connection with other types of lending operations. Indeed, the

principle of loan insurance is well established in the United States, and large numbers of insured loans are made each year. For example, nearly 75 percent of all home mortgage loans that are made today, counting those made by all types of institutional lenders, are made under the protection of a mutual loan-insurance program administered by the Federal Housing Administration and under the guaranty protection of the Veterans' Administration. It will also be recalled that the VA has a program for the insurance of farm and business loans to veterans as well as loans made to finance the purchase of homes. Even in the strictly commercial field we have had a good deal of experience with credit insurance by companies set up to insure, at a fee, the credit risk involved in commercial accounts. In short, the principle of loan insurance or loan guaranties is not a new or novel one, but one that has been tested under many different conditions.

There are a number of possible approaches to the problem of providing insurance for individual loans made by PCAs. It would be possible, for example, to set up a plan under which insurance would be provided for individual loans, as in the Federal Housing Administration program covering home mortgage financing, with a premium charged against each insured credit. An alternative approach, outlined below, provides for establishing a group-insurance reserve through assessments against insured associations.

## **Establishment and Maintenance of a Central Insurance Reserve**

Each PCA might be called upon to contribute an amount equal to not less than, say,  $2\frac{1}{2}$  percent of the average amount of its loans outstanding over the preceding 12 months (or, say,  $2\frac{1}{2}$  percent of the maximum amount of loans outstanding over the preceding 5 years) to a central insurance reserve fund. Annually, each association would be assessed an additional amount of not less than  $\frac{1}{4}$  of 1 percent of the average amount of its loans outstanding during the immediately preceding year. These annual assessments would be added to the central reserve until it reached 5 percent of average (or maximum) loans outstanding in the insured associations. Thereafter, annual reserve assessments would be made in such amounts as might be necessary to keep the reserve at the 5 percent level, but in no case would they exceed the established annual rate of assessment, say, one-fourth of 1 percent.

A mutual insurance reserve plan could be varied widely from the procedure suggested above, either with respect to the size and source of the initial fund, the annual rate of build-up of reserves, or the maximum amount to be accumulated. In any case, however, it would seem desirable to provide for an initial fund adequate to make the insurance program effective at its beginning. At the same time, both the PCAs' initial contributions and the annual additions should be within limits that are reasonable from the standpoint of the financial resources of participating associations.

### **Insurance Coverage**

It is suggested that one-half of any losses incurred by an individual PCA be borne by the association itself out of its own reserves with the other one-half registered as a claim against the central insurance reserve fund to be paid at the year end. A 50-50 sharing of losses is thought to be desirable, in preference to a 100 percent coverage, because it would leave each PCA with a substantial responsibility for the quality of its own loans and an incentive to make sound loans. Associations would not be tempted to emphasize loan volume at the expense of quality, with the thought that any and all losses could be passed on to other associations.

The annual cost to an individual association of participation in the fund would be the amount of such assessments as were made during the year, including assessments made on a pro rata basis among associations to pay the expenses of the fund's operations, less any claims that the association might have against the central reserve fund.

There would appear to be no reason why associations in general should have to raise the interest rates charged borrowers in order to meet the annual assessments of the central fund, assuming PCAs as a group are now accumulating reserves at a satisfactory rate. Associations are now accumulating reserves independently. Under the central reserve plan a part of each association's earnings would merely be transferred (by assessment) to a central or group reserve rather than

credited to the reserve account of the individual association. If an association's earnings were inadequate to meet its assessments, it would have to raise its interest rate, of course, or otherwise increase its earnings in order to participate in the plan.

### **Selection of Risks for Insurance**

Any program to insure loans necessarily raises the question whether all loans are to be insured automatically, or whether only certain types of loans are to be eligible for insurance and all others excluded. It is evident that if the latter course is followed machinery must be established to administer the standards of eligibility.

The advantages and disadvantages involved in the automatic insurance of all loans are perhaps clear. While this would be a liberal insurance program, the 50-50 loss-sharing arrangement would afford substantial protection for the central fund since associations still would have a real incentive to make a careful selection of loan risks. One obvious advantage of automatically insuring all loans is that administrative costs would be held to a minimum. If a decision were reached to inaugurate such a program each association's loans presumably would be examined before the program went into effect and "D" loans excluded as well as others which appeared likely to result in losses.

The establishment of standards of insurance eligibility presents greater technical and operating

problems. However, there are a number of bases on which eligibility might be determined. For example, loans in excess of a certain amount, loans made in connection with work-out cases, loans ineligible for discount with the FICBs, or loans that conflict with certain established credit standards might be regarded as ineligible. This report obviously cannot specify the details of an insurance eligibility standard. It must suffice to point out the general nature of the problems which it raises and the general lines along which these problems may be solved.

If eligibility standards are established, determining eligibility might be made a function of the PCCs, or a separate agency might be established for this specific purpose. In any event, the district offices would appear to be the most practical places to determine the eligibility of loans for insurance, since access to the loan folders of the FICB and other sources of information would greatly facilitate the task of determining eligibility.

### **Area to be Covered by Mutual Insurance Reserve**

Many factors point to the district as the most natural area over which to operate a mutual insurance reserve. These include knowledge of each PCA's operations by other associations within the district, the fact that all loans discounted by PCAs in each district pass through the same FICB, that all supervisory assistance comes from the same PCC, and that all associations have the same district advisory com-

mittee. At the same time it must be recognized that, in any insurance program, the wider the coverage the sounder and more serviceable is the insurance plan. A national insurance program can, within reasonable limits, provide protection for district-wide financial difficulties, always provided that not all districts experience serious trouble at the same time. Similarly, a district-wide plan can protect against difficulties in particular associations, but only to a much more limited degree can it protect against difficulties that are district-wide. There is, of course, no technical reason why a loan insurance program cannot be operated on a Nation-wide basis and, from an actuarial viewpoint, such a program would give the greatest over-all protection.

### **Liquidity Requirements**

If a central insurance reserve fund were established, provision would have to be made, of course, for the administration of the fund, including investment of the fund's reserves, in such manner as to give it the degree of liquidity which it would require to meet the claims against it.

### **Administration of the Insurance Program**

Participating PCAs might administer a mutual insurance reserve program, acting through a committee which could be either the PCA district advisory committee or a special committee elected for this purpose. The committee would be responsible for establishing stand-

ards of eligibility for insurance, selecting such underwriting staff as may be required, maintaining the necessary records, handling claims, determining assessments, and investing the funds of the central insurance reserve. An alternative to having the administration of the insurance program made a responsibility of the participating PCAs would be to have it administered by the PCCs. In any case, the FCA presumably would have the same supervisory powers over the operation of a loan insurance program as it has over other phases of production credit.

### **Effect of Program on PCA Discounting Capacity**

The effect of the operation of a mutual insurance plan on the maximum discounting capacity of individual associations would depend on whether assessments made by the central insurance fund were treated as an operating expense of the association or whether the association were permitted to carry a claim against the central fund as an asset on its balance sheet. In the first case, the discounting capacity of the association would be reduced by participation in the fund unless the FICBs were to permit higher borrowing ratios. Some increase in borrowing ratios would appear to be justified if a mutual insurance plan were in operation since a central reserve of a given amount which is available to absorb the losses of a number of PCAs would, in most instances, provide the FICBs with greater protection against losses than reserves of the same total

amount established by individual associations.

No problem of reduced discounting capacity would be encountered, of course, if participating associations were permitted to carry as an asset on their respective balance sheets a "claim" against the central fund equivalent to their net contributions to the fund (payments into the fund less a pro rata share of losses paid by the fund). This, however, would appear to be a practice of doubtful propriety.

### **Some Variations of the Above Program**

Numerous variations of the above program, each employing the basic principle of spreading risks through insurance, could be worked out. Two major variations may be mentioned.

(1) *Mutual insurance fund with Government capital.*—A variation which would lighten the burden on PCAs starting a loan insurance program would be to provide for establishing the initial insurance fund with a part of the Government capital which has been returned to the revolving fund. Annual contributions by associations thereafter, at a rate of, say, one-fourth of 1 percent of average loans outstanding, would be used to maintain the fund at the prescribed level and gradually to retire the Government capital.

(2) *Mutual insurance through the establishment of reserves by individual associations.*—An arrangement might be worked out whereby individual associations

would set aside special reserves on their books under the same general plan as that described above in connection with the central reserve fund. Annually the claims entered with the central administration of the insurance program would be assessed against the individual associations each of which would be expected, or required, to invest its

reserve in liquid assets. Again, the discounting capacity of the associations participating in the program would be affected by whether they were permitted to count the special reserves established under the program as a part of net worth for purposes of calculating their maximum borrowing capacity from the FICBs.

### **Method III: Establishing a Group Reserve for Contingencies**

The approach to risk-spreading of method II, described above, is through insuring individual loans. As was indicated, this is, in general, the technique followed in the Federal Housing Administration insurance of home mortgage loans, though the specific plan suggested differs in many important ways from that followed by the Federal Housing Administration.

Another possible approach to the problem is by supporting the capital structures of associations that have suffered losses to an extent that threatens to disrupt their functioning as credit suppliers. Like the approach to risk-spreading through insuring the individual loans, a plan which would have as its objective the support of the associations as a whole has a good deal of precedent in actual practice. Perhaps the outstanding example of this approach is the power of the Federal Deposit Insurance Corporation to come to the aid of distressed banking institutions where, in the opinion of the management of the FDIC, the institution is one that

should be supported. The Corporation has a substantial reserve fund at its disposal which it can use to aid distressed banks and this fund can be supplemented by the Corporation's authority to borrow additional funds. A number of the New England States, notably Massachusetts, Connecticut, and New Hampshire, for some years have operated central funds (1) to guarantee the deposits of mutual savings banks and (2) to come to the aid of such institutions when for one reason or another they are in distressed condition. For many years New York State operated such a fund and only recently was this discontinued and the lot of the mutual savings banks of New York cast with the FDIC.

To approach the problem of adding strength to the production credit system through establishing a group reserve for contingencies is not, therefore, out of line with established practice in other parts of the financial system. A proposal for one such arrangement, involving the establishment of a group contingency reserve, is described below.

## **Establishment and Maintenance of Group Reserve**

Each association would be called upon to contribute to a central contingency reserve fund in an amount equal to not less than say 2½ percent of the average amount of its loans outstanding during the preceding year and to add annually to this special group reserve an amount equal to not less than one-fourth of 1 percent of the average amount of its loans outstanding during each subsequent year until the reserve reached 5 percent of average outstandings during the preceding year. Thereafter, annual reserve assessments would be made in such amounts as are necessary to keep the reserve at the 5-percent level, but in no case would they exceed the established annual rate of assessment, of say one-fourth of 1 percent.

## **Participation**

Participation in the group reserve program might be on a national or district basis and either voluntary or compulsory. However, like the mutual loan insurance fund of method II, it would be much less effective if limited to a single district than if operated on a national basis. If voluntary, a high proportion of PCAs would have to participate in the program for it to be effective.

## **Administration**

Administration of the group reserve program might be placed in the hands of a committee elected by participating PCAs or might be made a responsibility of the PCCs. If impairment of the class B stock of

an association should be imminent, the financial position of the association would be reviewed carefully and a decision would be made on the extent to which the group reserve would be utilized to give it needed financial aid, and conditions would be specified under which aid would be made available. In connection with these reviews the contingency fund administration would be authorized to call upon such agencies of the Farm Credit Administration as might be able to give it help, including the Examination Division of FCA. Also, it would have access to examination reports and such other materials as might have a bearing on its responsibilities. The fund administration would have the authority to conduct its own examination of PCAs, where this was indicated, and to call on them for relevant information in addition to that available from other sources. The administration might be given the following discretionary powers, among others, to assist distressed associations:

(1) Authority to purchase the class A stock of PCAs with impaired class B stock, or of PCAs which, in the judgment of the committee, are in danger of class B stock impairment.

(2) Authority to make secured or unsecured advances to associations in the above categories or to subscribe to their paid-in surplus; and authority to prescribe the terms and conditions on which such advances or subscriptions shall be made, including terms of repayment.

(3) Authority to levy assessments against participating associations to

obtain the funds required for advances and/or subscriptions to the class A stock or paid-in surplus of distressed associations.

(4) Authority to require, as a condition of extending aid, such changes in management, or such operating and risk-selection policies, as it believed necessary to repair the association's difficulties and to protect the investment made in the association from the group contingency fund.

### **Release From Liability**

As indicated in the preceding section, the contingency fund administration would be given discretionary power in the matter of aiding financially distressed associations, including the power to refuse assistance if, in its opinion, the condition of an association were such as to indicate liquidation. In the event of a decision to refuse aid,

the PCA affected would be automatically released from any liability for further assessments by the central fund.

### **Effect on PCA Discounting Capacity**

The effect of establishing a group contingency reserve of this type on the discounting capacity of participating associations would be the same as that discussed in connection with the central reserve fund for insuring individual loans (method II). The discounting capacity of associations would be reduced if the payments to the contingency fund were treated as current expenses but this might be offset, in part at least, by permitting somewhat higher borrowings by PCAs in relation to their net worth in view of the added strength which the fund would give to the system as a whole.

## **Method IV: Consolidation of Production Credit Lending and Discounting Agencies**

The methods outlined above have approached the problem of strengthening the financial position of production credit associations by methods which involve no fundamental change in the present organization of the production credit system. The problem of risk-bearing may be approached, however, in ways that would involve certain organizational changes. One such way would involve the purchase of the FICBs by the PCAs. A reorganization of this type would place the PCAs and their respective FICBs on a basis of cooperative ownership similar in many ways to that which exists

between member-borrowers of PCAs and individual associations and between the National Farm Loan Associations (NFLAs) and the Federal Land Banks (FLBs). While it is not the purpose of this report to indicate in detail the means by which such a reorganization of production credit facilities might be achieved, one possible method may be briefly outlined.<sup>1</sup>

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<sup>1</sup> An excellent report on this problem, entitled "Proposals for Converting the FICBs from Government Ownership to Ownership by Users of the System," was prepared by a committee of Federal intermediate credit bank presidents and discussed at the Farm Credit district directors' conference in Springfield, Mass., in 1948.

### Purchase of FICBs by PCAs

The first step in reorganization would be for the PCAs to purchase the FICBs of their respective districts. While this would necessarily be done on a district-by-district basis, and the ability of the associations in different districts to purchase their respective banks would vary, the procedure may be illustrated most easily by referring to consolidated balance sheets, as of June 30, 1951, for all PCAs and all FICBs.

The purchase of the FICBs by the PCAs might be made at the par value of FICB stock, at its book value, or at some negotiated figure. For purposes of this report, it is assumed that the purchase is made at par, a basis that may be defended on the grounds that the FLBs were permitted to retire U. S. Government capital at par and that there would be substantial benefits to the Government if the purchase of FICBs by PCAs were consummated on a basis that left the production credit system in a strong financial position. The par value of FICB stock as of June 30, 1951, was \$61.2 millions (table 17).

It is assumed, for purposes of illustration, that the PCAs would sell part of their holdings of U. S. Government securities to finance the purchase of FICB stock. As of June 30, 1951, PCAs owned U. S. Government securities valued at \$119.3 millions (table 16, column 1). If \$62.1 millions of these securities had been sold as of June 30, 1951, to finance the purchase of FICB stock, the consolidated balance

Table 16.—Consolidated balance sheet of PCAs as of June 30, 1951

Items	Actual, June 30, 1951	Balance sheet assuming PCAs had purchased FICBs, as of June 30, 1951
<b>ASSETS</b>	<i>Millions</i>	<i>Millions</i>
Loans (net).....	\$694.3	\$694.3
U. S. Government securities.....	119.3	58.1
FICB capital stock.....	None	61.2
Cash.....	12.5	12.5
Other assets.....	4.5	4.5
<b>Total assets.....</b>	<b>830.6</b>	<b>830.6</b>
<b>LIABILITIES</b>		
Loans rediscounted.....	614.2	614.2
Notes payable.....	49.3	49.3
Other liabilities.....	7.9	7.9
Capital stock "A".....	31.8	31.8
Capital stock "B".....	58.0	58.0
Reserves for guaranty fund and contingencies.....	63.6	63.6
Unapplied earnings.....	5.8	5.8
<b>Total liabilities.....</b>	<b>830.6</b>	<b>830.6</b>

Table 17.—Consolidated balance sheet of FICBs as of June 30, 1951

Items	Actual, June 30, 1951	Balance sheet assuming PCAs had purchased FICBs, as of June 30, 1951
<b>ASSETS</b>	<i>Millions</i>	<i>Millions</i>
Loans and discounts.....	\$794.6	\$794.6
Cash.....	14.6	14.6
Notes and accounts receivable.....	0.8	0.8
U. S. Government securities.....	46.2	46.2
Accrued interest.....	5.8	5.8
Other assets.....	0.4	0.4
<b>Total assets.....</b>	<b>862.4</b>	<b>862.4</b>
<b>LIABILITIES</b>		
Consolidated debentures.....	742.6	742.6
Notes and accounts payable.....	10.6	10.6
Accrued interest payable.....	5.0	5.0
Other liabilities.....	2.6	2.6
Capital stock owned by: U. S. Government.....	61.2	None
PCAs.....	None	61.2
Reserve for contingencies.....	13.1	13.1
Earned surplus.....	27.3	27.3
<b>Total liabilities.....</b>	<b>862.4</b>	<b>862.4</b>

sheet of all PCAs following the transaction is shown in column 2 of table 16. The consolidated balance sheet of the 12 FICBs following the transaction is shown in the second column of table 17.

### **Method of Spreading Risks**

Purchase of the FICBs by the PCAs in the manner described above would permit the spreading of loan risks within a district in the same general manner as risks are now spread in the Federal land bank system. An arrangement might be made, for example, under which 50 percent of the losses on PCA loans would be absorbed by the PCA and 50 percent by the FICB of the district. The operating margin of the FICBs would have to be adjusted to whatever extent is necessary to enable them to build up reserves to absorb their share of the losses. Since each FICB would be owned by the PCAs in the district in which it operates, the effect of the loss-sharing arrangement would be to spread losses absorbed by the FICB among all PCAs in the district in proportion to their equities in the FICB.

What would amount to a spreading of risks on a National basis is provided for under that section of the law which authorizes the Farm Credit Administration to assess the other FICBs in the event there is an impairment of the paid-in capital of any one FICB.

### **Financial Rehabilitation of PCAs**

It might be desirable to authorize FICBs to utilize their resources in

the rehabilitation of distressed associations in their respective districts on a basis similar to that discussed in method III above. The resources needed for such rehabilitation might be drawn from the general reserves of the FICBs or a program might be initiated for the accumulation of a reserve for this purpose out of regular assessments on production credit associations. It might be observed that a provision of this kind would parallel what is the declared policy of the Federal land banks with respect to rehabilitating NFLAs.

### **Some Operating Problems**

A reorganization of production credit facilities along the lines suggested above would affect PCA operations in a number of ways completely apart from what it might accomplish in the way of spreading the risks of PCA lending operations and generally strengthening their ability to withstand losses. Certain problems resulting from a reorganization of the type described are discussed below. There are others that might also be mentioned though they are not regarded as crucial.

(1) Substitution of FICB stock for an equivalent amount of Government securities would reduce PCA earnings unless a dividend were paid on FICB stock equivalent to the average rate of interest earned on the Government securities disposed of to buy stock. Since each FICB has paid-in capital of \$5,000,000 and since PCAs are earning an average rate of return of about 2.5 percent on their

present holdings of Government securities, the sale of Government securities to obtain funds with which to purchase FICB stock would result in a loss in earnings to the PCAs in each Farm Credit district of approximately \$125,000 unless a dividend of approximately 2.5 percent were paid on FICB stock. The loss of this amount of income would bear much more heavily on the associations in some districts than in others. For the year ending June 30, 1951, for example, \$125,000 represented 28.9 percent of the combined net earnings of associations in the Berkeley district, but only 10.6 percent of the net earnings of associations in the St. Louis district. Variations among individual associations would be even greater, of course, than are indicated by these figures.

If the FICBs are to pay an annual dividend of \$125,000 per bank without reducing the amount of profits that would otherwise be available for additions to earned surplus, it would be necessary, of course, for them to raise their discount rates. It is estimated, for example, that for the FICB system as a whole, an average increase of approximately 0.25 percent in the discount rate during the year ending June 30, 1951, would have been necessary to permit the 12 banks to pay a dividend of \$1,500,000 (\$125,000 per bank) without reducing the amount available for additions to earned surplus. The amount of the necessary increase would have varied widely, of course, among the 12 banks.

(2) The ability of PCAs to obtain

direct advances from the FICBs secured by Government bonds would be reduced as a result of the substitution of FICB stock for PCA-owned Government bonds. This might create a serious problem in individual associations and necessitate the purchase of additional class A stock by the Government. It is recognized, of course, that the purchase of class A stock by the Government to enable PCAs to purchase the FICBs would amount, at the outset at least, to nothing more than substitution of an investment by the Federal Government in the class A stock of PCAs for its present investment in the capital stock of the FICBs. Presumably, however, the long-term plan would contemplate the retirement of all Government-owned class A stock so that the production credit system would ultimately be fully farmer-owned. The rate of retirement of Government-owned class A stock would depend, of course, upon the future rate of earnings of PCAs and their ability to sell capital stock to their members.

(3) A question arises as to the propriety of counting FICB stock owned by PCAs as a part of their assets in calculating their net worth for the purpose of determining the volume of loans they will be permitted to discount with the FICBs. It is clear that the substitution of FICB stock for Government securities owned by PCAs does not affect the net worth of the PCAs. As a matter of fact the book value of FICB assets, which would be wholly PCA-owned, would exceed their par value (at which they would be pur-

chased and carried on PCA books) by some \$40 million. Obviously, if it were decided that holdings of FICB stock could not properly be included in the calculation of the net worth of PCAs for the purpose of determining their maximum borrowing capacity from the FICBs, the purchase of the FICBs by the PCAs would have a serious effect on the discounting capacity of the latter.

(4) A question might arise in the minds of investors concerning the quality of the collateral behind FICB debentures if the FICBs were owned by their principal users, the PCAs. A number of alternative solutions to this problem suggest themselves. One possibility would be for the Governor of the Farm Credit Administration to appoint one or more credit examiners in each district, comparable to reviewing appraisers in the Federal land bank system. These officials would be responsible for constantly checking the quality of notes accepted for discount by the FICBs, using such

methods as seemed appropriate, including test inspections of individual loans.

### **Role of the PCCs**

A question arises as to whether the 12 PCCs would continue to operate in the future as they have in the past if the PCAs should purchase the FICBs in the manner described above. One possibility would be to have the PCCs continue to supervise the PCAs as they have in the past. Another possibility is to liquidate the PCCs and turn their supervisory functions over to the FICBs. If all the assets of the PCCs were turned over to the U. S. Treasury for liquidation and their supervisory functions assigned to the FICBs, the question arises as to how many of the FICBs, if any, could absorb the operating expenses of the PCCs in their respective districts without increasing their discount rates. A number of FICBs would, no doubt, find it necessary to increase their rates.

## **Method V: Consolidation of Production and Mortgage Credit Units of the Farm Credit Administration**

Another way of spreading risks, involving a more extensive reorganization of Farm Credit facilities, would be to create in each Farm Credit district a new agency, which might be called a Federal Farm Credit Bank, in which would be consolidated both the long-term and short-term credit functions presently performed by the Federal land bank system and the production

credit system including the FICBs. This plan of consolidation of functions could be carried out, of course, not only at the level of the district units, but could extend to the consolidation of NFLA and PCA functions in the field. There are a number of ways in which a reorganization of Farm Credit facilities of this type might be effected. One such method is outlined briefly below.

## Consolidation of District Units

As a first step, the PCAs in each district would purchase their respective FICBs on the basis described in method IV above. A condensed consolidated balance sheet of the FICBs following their purchase by the PCAs, using figures as of June 30, 1951, for purposes of illustration, is shown in column 2 of table 17. A condensed consolidated balance sheet of the FLBs as of the same date is shown in table 18.

Subsequent to the purchase of the FICBs by the PCAs, there would be formed in each district a Federal Farm Credit Bank (FFCB) in which would be consolidated the assets, liabilities, and capital accounts of the FLBs and FICBs. The FFCB would issue stock which would be exchanged for the FLB stock held by the NFLAs and for the FICB stock held by the PCAs. This exchange might be on a one-for-one basis in which case it would involve no more than an exchange of stock certificates. The exchange might be made, of course, on a book value or some other basis.

A condensed consolidated balance sheet of the 12 FFCBs following consolidation of the PCA-owned FICBs and NFLA-owned FLBs is shown in table 19.<sup>1</sup> This balance sheet is based on figures for June 30, 1951, and assumes FFCB stock is exchanged for FLB and FICB stock on a one-for-one basis. It will be noted that the consolidated

Table 18.—Consolidated balance sheet of FLBs, June 30, 1951

Items	June 30, 1951
<b>ASSETS</b>	
	<i>Millions</i>
Mortgage loans (net)-----	\$957.0
Cash-----	17.6
Accounts receivable-----	.1
U. S. Government securities-----	81.8
Other securities-----	2.0
Accrued interest receivable-----	.2
Banking house, furniture, fixtures, equipment (net)-----	5.2
Other assets-----	4.3
Total assets-----	1,068.2
<b>LIABILITIES</b>	
Consolidated bonds-----	\$714.8
Notes and accounts payable-----	38.6
Accrued interest payable-----	3.9
Future payment funds-----	17.2
Other liabilities-----	8.5
Capital stock owned by NFLAs and direct borrowers-----	61.5
Legal reserve-----	99.8
Earned surplus-----	123.9
Total liabilities-----	1,068.2

FFCB balance sheet assumes the continued carrying of reserves as now found on the balance sheets of the FLBs and the FICBs. The consolidated agency might continue on this basis or some rearrangement and combination of reserves might be effected. The essence of the plan is that the resources of the combined agencies would be fully available for the carrying of risks involved in both long-term and short-term loans.

After the new agency had been formed, NFLAs would continue to subscribe to its stock on the same basis as they now subscribe to FLB stock and their borrowers would subscribe for NFLA stock as at present. In order to place the production credit system on the same

<sup>1</sup> As of June 30, 1951, FLB stock outstanding totaled \$61,507,783 of which NFLAs owned \$61,326,963 and direct borrowers \$180,820.

**Table 19.—Consolidated balance sheet of FFCBs, June 30, 1951<sup>1</sup>**

Items	June 30, 1951
<b>ASSETS</b>	
	<i>Millions</i>
Short- and intermediate-term loans and discounts.....	\$794.6
Mortgage loans (net).....	957.0
Cash.....	32.2
Notes and accounts receivable.....	.9
U. S. Government securities.....	128.0
Other securities.....	2.0
Accrued interest receivable.....	6.0
Banking house, furniture, fixtures, equipment (net).....	5.2
Other assets.....	4.7
<b>Total assets.....</b>	<b>\$1,930.6</b>
<b>LIABILITIES</b>	
Consolidated debentures.....	\$742.6
Consolidated bonds.....	714.8
Notes and accounts payable.....	49.2
Accrued interest payable.....	9.0
Future payment funds (FLB loans).....	17.2
Other liabilities.....	11.0
Capital stock:	
Owned by PCAs.....	61.2
Owned by NFLAs <sup>2</sup> .....	61.5
Legal reserves and reserves for contingencies.....	112.9
Earned surplus.....	151.2
<b>Total liabilities.....</b>	<b>1,930.6</b>

<sup>1</sup> See text for assumptions on the basis of which this balance sheet was prepared.

<sup>2</sup> Includes \$180,820 of FLB stock owned by direct borrowers.

basis as the farm mortgage system with respect to capital stock and to preserve parallel organization and procedures in both long-term and short-term credit agencies, it would be desirable to require PCAs in the future to subscribe to FFCB stock in the same manner as NFLAs. PCA borrowers, in turn, would subscribe to PCA stock as they have in the past on a basis similar to NFLA borrowers.

As an alternative, the PCAs and NFLAs in each Farm Credit dis-

trict might be consolidated into local "farm credit associations" which would make both production loans and mortgage loans. Borrowers would be required to subscribe to stock in the local association through which they borrow, which in turn would subscribe to stock in the FFCB of the district.

### Method of Spreading Risks

A new consolidated farm credit agency of the type contemplated in this plan would be in a position to do jointly for mortgage credit and short-term production credit what the FLBs are able to do at present, and what is proposed to be done by the FICBs under method IV above, namely, to provide for the spreading of at least 50 percent of losses over all PCAs and NFLAs in each district. It would be desirable to provide for the spreading of risks among districts by authorizing the Farm Credit Administration to assess the other FFCBs in the event of a threatened impairment of the capital stock of any one FFCB.

In connection with its absorption of say 50 percent of the losses incurred on PCA loans, as well as absorption of 50 percent of losses on NFLA loans which is currently provided for, the FFCB might find it desirable to establish special reserves of the sort discussed in methods II and III above, either from earnings or from assessments on local associations for this specific purpose.

### Operating Problems

Some of the operating problems that would arise if reorganization

were limited to the purchase of the FICBs by the PCAs have been previously discussed (pp. 46-48). These problems as well as others would have to be dealt with if the PCAs were to purchase the FICBs and the PCA-owned FICBs were then consolidated with the NFLA-owned FLBs. At the present time, for example, PCAs are authorized to charge borrowers an interest rate which exceeds the FICB discount rate by as much as 4 percent. This interest spread or margin provides their principal source of income. NFLAs, on the other hand, are largely dependent for income upon loan-servicing charges and dividends paid by the FLBs. If the FICBs and FLBs were consolidated it probably would be necessary to

alter the relationship between the NFLAs and the new FFCBs so as to place the NFLAs in a position similar to that now held by the PCAs with respect to interest income. This would be especially necessary if present PCA and NFLA credit services were combined in a single organization in each community or other service area.

No attempt is made in this report to spell out in detail or even to list all of the operating problems that would arise under a consolidation of the type described. So far as the committee has been able to determine, however, there are no problems which are insurmountable if all interested parties should agree that such a consolidation is desirable.

## Part III

### Suggested Next Steps

AS stated in the preface to this report, the committee has not conceived its task to be that of recommending a specific risk-spreading program. Rather we have limited ourselves to (1) analyzing the loss experience of production credit associations to date and their present position from the standpoint of their ability to bear risks and (2) studying and presenting for discussion and consideration certain methods of improving the ability of PCAs to meet the risks inevitable in agricultural lending without interrupting their credit-supplying function.

As we see it, three additional steps are necessary in developing a specific program. First, a decision should be reached as to what method or methods of spreading risks, such as those presented in this report, appear to hold the most promise. Second, the most promising method or methods should be carefully analyzed from the legal, financial, and operating points of view. Finally, after opportunity for full discussion by members, directors, and officers of PCAs, the district credit units and the staff of the Farm Credit Administration in Washington, D. C., a decision

should be reached concerning the method or methods to be used. If a decision should be reached to change the present method of risk-bearing, it is probable that appropriate legislation will have to be prepared and submitted to the Congress. This, in effect, would constitute a fourth step.

It is the view of the committee that the directors, officers, and members of production credit associations, the directors and staffs of the district credit units, and the staff of the Farm Credit Administration in Washington, D. C., are in a much better position to decide

what method or methods of risk-bearing are likely to be best adapted to meet the needs of the production credit system than is the committee. It also is our view that the staff of the Farm Credit Administration is in a better position to make detailed legal, financial, and operational studies of various alternatives than is the committee. Clearly, the responsibility for reaching a decision as to what, if any, changes shall be made in present methods of risk-bearing rests with the farmer-borrowers of the system, the Farm Credit Administration, and the Congress.

F. F. HILL, *Chairman*

G. H. AULL

E. L. BUTZ

A. R. GANS

W. G. MURRAY

R. J. SAULNIER

## Appendix A

### Size of PCA Loans

The average size of PCA loans varies widely from district to district, reflecting differences in type and scale of farming operations. Almost without exception since the organization of the system, the smallest PCA loans have been made in the Columbia and New Orleans districts, though loans made in the Louisville, St. Louis, and St. Paul districts also were small during the early years of operation. In each of these five districts the average loan was less than \$600 in 1936 (table A). At the other extreme, the average loan in the Berkeley and Spokane districts during 1936 exceeded \$4,000.

For the production credit system as a whole, the average loan size has risen every year, with the exception of 1949, from 1936 through 1950. In 1950, loans averaged \$3,734, or nearly four times as large as in 1936 (tables A and B). Percentage increases by districts during this period ranged from 95 percent in Spokane to 628 percent in Omaha. In 1949, when the first decline in the average size of loan occurred for the country as a whole, loans averaged about 1 percent smaller than in 1948. In 1950, however, the average size of loan increased again to a new peak which was 12 percent higher than in 1949.

This large increase in the average size of PCA loans is accounted for primarily by the increase in farm operating costs. From 1936 to

1950, the Department of Agriculture's estimates of farm production expenses increased 349 percent, compared with an increase of 285 percent in the average size of PCA loans. Undoubtedly some part of the increase in average size of PCA loans is attributable to the increase in the size of the farm business. Another factor which has contributed to the larger average size of PCA loan during recent years has been the increased degree of mechanization of American agriculture. Capital requirements for non-real-estate purposes have been a large proportion of total capital requirements during recent years. As of January 1, 1951, non-real-estate physical assets of farmers amounted to about 40 percent of total physical assets, compared with 31 percent in 1940. Still another factor has been the greater willingness of farmers to use credit during recent years when increased production has been more profitable. During the late 1930's, there was less incentive to borrow extensively for production purposes, and many farmers were deterred from borrowing because of recent memories of financial difficulties which were encountered during the depression. In any event, it is apparent that the average size of PCA loans has followed changes in farm operating costs and incomes. A recent indication of this tendency is the fact that 7 of the 12 districts, and the United

States as a whole, showed a decline in average loan size in 1949, when both farm production expenses and farm income declined. Following this decline in the average size of PCA loans in 1949, all districts reported an increase in the average size of loans in 1950, and a further increase during the first 6 months of 1951. For individual districts the increase in average loan size from the first half of 1950 to the first half of 1951 was as follows:

District:	<i>Percent change in average size of loans made, 1950 to 1951</i>
Springfield.....	+8.5
Baltimore.....	+9.9
Columbia.....	+19.0
Louisville.....	+22.6
New Orleans.....	+34.6
St. Louis.....	+34.3
St. Paul.....	+23.0
Omaha.....	+39.8
Wichita.....	+38.1
Houston.....	+38.8
Berkeley.....	+26.0
Spokane.....	+28.4

### Distribution of Loans by Size

For the United States as a whole, 45.7 percent of the number of loans paid or renewed during the year ended June 30, 1950, were for \$1,000 or less, and only 5.7 percent exceeded \$10,000. For individual districts, however, the proportion of loans for \$1,000 or less ranged from only 15.3 percent in Omaha to 72.9 percent in New Orleans. Berkeley and Spokane, like Omaha, had relatively few small loans with less than 20 percent for \$1,000 or less, while Columbia was next to New Orleans with 68.2 percent in this category (table C). At the other extreme, 23.2 percent of the loans paid or renewed in the Berkeley district

during the year ending June 30, 1950, exceeded \$10,000 compared with 2.0 percent or less in the Columbia and Louisville districts.

Unfortunately, data are available only on the number of loans paid or renewed in each size group, and not on the dollar amount. However, estimates prepared by the Economic and Credit Analysis Division of the Farm Credit Administration give at least a rough indication of the distribution of loan amounts by loan size. These estimates were based on the distribution, by number, of loans in each size group; on data on excess loans submitted to the Production Credit Division in Washington; on a summary of loans of \$100,000 or more; and on data on the difference between the median and arithmetic average size of loans. Unfortunately, there is no basis for determining how wide a margin of error there is in these estimates.

As would be expected, the estimates show a much greater concentration of dollar amounts in the larger size groups than in number of loans. For the country as a whole, loans paid or renewed during the year ended June 30, 1950, which exceeded \$10,000 in amount, and accounted for only 5.7 percent of the total number of loans, made up an estimated 42.5 percent of the dollar amount of all loans. At the other extreme, only 2.3 percent of the dollar amount was accounted for by the 26.5 percent of all loans which were for \$500 or less (table D).

For some individual districts, the estimates indicate an even greater concentration of loan volume in the larger loans. Nearly three-fourths

Table A.—Average size of PCA loans, 1936 to 1950, and median size of loans for selected years, by districts

Year	District												United States
	1	2	3	4	5	6	7	8	9	10	11	12	
	Average size of loan												
1936-----	\$1,280	\$824	\$335	\$576	\$570	\$546	\$541	\$1,274	\$1,458	\$1,808	\$4,443	\$4,081	\$972
1937-----	1,338	941	404	761	698	798	698	1,505	1,871	2,654	4,533	4,587	1,166
1938-----	1,395	1,004	476	833	692	910	751	2,320	2,050	2,663	4,551	4,498	1,242
1939-----	1,412	1,081	523	915	773	1,165	796	2,819	2,468	2,891	4,750	4,859	1,368
1940-----	1,418	1,215	566	970	865	1,271	975	2,926	2,826	3,135	4,995	5,101	1,514
1941-----	1,572	1,440	652	1,141	1,008	1,553	1,211	3,431	3,265	3,284	5,633	5,566	1,803
1942-----	1,659	1,572	788	1,384	1,113	1,810	1,396	3,528	3,622	3,494	6,424	5,563	2,023
1943-----	1,838	1,637	862	1,567	1,090	1,970	1,586	4,940	3,518	3,602	7,141	5,850	2,172
1944-----	1,965	1,903	998	1,565	1,225	1,909	1,658	4,583	3,597	3,743	8,011	5,623	2,246
1945-----	2,132	2,087	1,102	1,630	1,287	2,098	1,874	5,196	3,962	3,796	8,413	5,923	2,411
1946-----	2,550	2,480	1,222	1,858	1,394	2,337	2,129	5,773	4,653	4,352	9,153	6,339	2,691
1947-----	2,813	2,691	1,337	2,158	1,520	2,649	2,416	7,099	5,390	4,787	9,776	6,703	3,016
1948-----	3,083	2,620	1,378	2,398	1,939	3,124	2,659	7,907	6,414	5,286	10,388	7,071	3,369
1949-----	2,890	2,783	1,449	2,280	1,971	3,099	2,649	7,919	6,272	6,069	9,527	7,042	3,326
1950-----	2,959	3,070	1,569	2,425	2,173	3,580	2,931	9,278	7,219	6,275	10,266	7,960	3,734
	Median size of loan <sup>1</sup>												
1939-----	678	466	243	461	226	464	518	958	602	595	1,750	1,559	442
1943-----	931	661	360	719	313	732	826	1,637	1,132	982	2,200	1,948	675
1946-----	1,293	788	455	836	388	901	1,040	1,975	1,381	1,170	3,351	2,457	828
1950-----	1,836	1,120	666	1,238	473	1,331	1,771	3,850	2,900	1,873	3,868	3,346	1,221

<sup>1</sup> Median size of loans repaid or renewed based on total amount advanced. Data for 1939 and 1943 are for the calendar years; data for 1946 and 1950 are for the fiscal years ended June 30.

Table B.—Index of average size of PCA loans made by districts, 1936 to 1950

[1939 average for each district=100]

Year	District												United States
	1	2	3	4	5	6	7	8	9	10	11	12	
	Percent of 1939 district average												
1936-----	91	76	64	63	74	47	68	45	59	63	94	84	71
1937-----	95	87	77	83	90	68	88	53	76	92	95	94	85
1938-----	99	93	91	91	90	78	94	82	83	92	96	93	91
1939-----	100	100	100	100	100	100	100	100	100	100	100	100	100
1940-----	100	112	108	106	112	109	122	104	115	108	105	105	111
1941-----	111	133	125	125	130	133	152	122	132	114	119	115	132
1942-----	117	145	151	151	144	155	175	125	147	121	135	114	148
1943-----	130	151	165	171	141	169	199	175	143	125	150	120	159
1944-----	139	176	191	171	158	164	208	163	146	129	169	116	164
1945-----	151	193	211	178	166	180	235	184	161	131	177	122	176
1946-----	181	229	234	203	180	201	268	205	189	151	193	130	197
1947-----	199	249	256	236	197	227	304	252	218	166	206	138	220
1948-----	218	242	264	262	251	268	334	280	260	183	219	146	246
1949-----	205	257	277	249	255	266	333	281	254	210	201	145	243
1950-----	210	284	300	265	281	307	368	329	293	217	216	164	273
	Percent of 1939 district median <sup>1</sup>												
1939-----	100	100	100	100	100	100	100	100	100	100	100	100	100
1943-----	137	142	148	156	139	158	159	171	188	165	126	125	153
1946-----	191	169	187	181	172	194	201	206	229	198	191	158	187
1950-----	271	240	274	269	209	287	342	402	482	315	221	215	276

<sup>1</sup> Median size of loans repaid or renewed based on total amount advanced. Data for 1939 and 1943 are for the calendar years; data for 1946 and 1950 are for the fiscal years ended June 30.

of the total dollar volume of loans paid or renewed in the Berkeley district during the year ending June 30, 1950, exceeded \$10,000 and more than 50 percent of loans paid or renewed during this period in Omaha, Wichita, Houston, and Spokane districts were in this category. While the margin of error in

the district estimates is probably somewhat larger than for the United States totals, it is apparent that wide variation exists among districts in the proportion of total loan volume accounted for by a relatively few large loans. Even greater variations exist among PCAs within districts.

**Table C.—Percent distribution of number of PCA loans paid or renewed during 12 months ending June 30, 1950, by size groups<sup>1</sup>**

District	Total number of loans paid or renewed	Size group							Total
		\$500 or less	\$501 to \$1,000	\$1,001 to \$2,000	\$2,001 to \$5,000	\$5,001 to \$10,000	\$10,001 to \$50,000	Over \$50,000	
Springfield.....	19,041	14.3	15.6	24.0	31.2	10.6	4.1	0.1	100.0
Baltimore.....	17,472	27.9	19.5	21.6	20.7	6.6	3.2	.5	100.0
Columbia.....	52,821	40.9	27.3	17.2	10.6	2.6	1.3	.1	100.0
Louisville.....	40,591	21.8	22.3	24.6	23.2	6.0	2.0	.1	100.0
New Orleans.....	33,438	52.9	20.0	11.2	8.6	3.8	3.2	.3	100.0
St. Louis.....	32,422	24.2	19.3	19.6	21.9	9.5	5.2	.3	100.0
St. Paul.....	23,127	14.3	16.0	25.5	33.0	8.5	2.6	.1	100.0
Omaha.....	9,501	6.9	8.4	14.7	32.4	20.5	15.1	2.0	100.0
Wichita.....	12,714	12.2	12.0	17.4	28.1	15.7	13.0	1.6	100.0
Houston.....	21,349	18.5	14.5	19.5	25.1	12.0	9.3	1.1	100.0
Berkeley.....	7,964	7.9	9.8	15.8	26.4	16.8	20.1	3.2	100.0
Spokane.....	11,590	8.2	11.1	17.5	29.4	17.5	14.5	1.8	100.0
Total.....	282,030	26.5	19.2	19.3	21.2	8.2	5.1	.5	100.0

<sup>1</sup> Prepared by Economic and Credit Analysis Division, Farm Credit Administration.

**Table D.—Percent distribution of estimated amount of PCA loans paid or renewed during 12 months ending June 30, 1950, by size groups**

District	Total estimated amount of loans paid or renewed <sup>1</sup>	Size group							Total
		\$500 or less	\$501 to \$1,000	\$1,001 to \$2,000	\$2,001 to \$5,000	\$5,001 to \$10,000	\$10,001 to \$50,000	Over \$50,000	
	\$1,000								
Springfield.....	55,800	1.3	4.0	12.3	37.3	27.2	16.1	1.8	100.0
Baltimore.....	49,187	3.0	5.5	13.8	29.4	20.0	17.2	11.1	100.0
Columbia.....	78,326	7.6	13.8	17.4	25.1	13.0	19.4	3.7	100.0
Louisville.....	96,001	2.6	7.2	15.5	33.6	18.3	18.4	4.4	100.0
New Orleans.....	66,588	9.0	8.0	10.2	19.4	16.4	28.4	8.6	100.0
St. Louis.....	103,559	2.1	4.5	9.2	24.0	22.4	31.2	6.6	100.0
St. Paul.....	64,190	1.4	4.3	13.8	41.6	22.9	13.5	2.5	100.0
Omaha.....	78,815	.2	.8	2.7	13.7	18.5	45.5	18.6	100.0
Wichita.....	81,153	.5	1.4	4.1	15.4	22.3	40.0	16.3	100.0
Houston.....	118,995	1.0	2.2	6.3	18.0	18.2	40.0	14.3	100.0
Berkeley.....	75,941	.2	.8	2.5	9.7	13.2	48.9	24.7	100.0
Spokane.....	87,377	.3	1.1	4.0	15.6	19.8	43.2	16.0	100.0
Total.....	955,932	2.3	4.3	9.0	22.7	19.2	31.5	11.0	100.0

<sup>1</sup> Dollar amounts are based on loans closed in the calendar year 1949. The distribution shown represents estimates for each size group based on available data and the margin of error may be considerable, especially for the various size groups in any one district. Prepared by Economic and Credit Analysis Division, Farm Credit Administration.

## Appendix B

Table E.—Summary of operations of PCAs, 1945 compared with 1950

Item	Year ended Dec. 31	
	1945	1950
Number of production credit associations.....	511	500
Number of stockholders (farmers and stockmen)....	363,000	462,000
Number of loans made.....	214,000	288,000
Amount of loans made.....	\$516,116,000	\$1,075,710,000
Maximum balance of loans outstanding during year.....	\$269,734,000	\$545,764,000
Capital stock owned by members (farmers and stockmen).....	\$32,973,000	\$71,145,000
Total legal reserves and surplus.....	34,922,000	63,868,000
Stock of the associations owned by the production credit corporations.....	55,355,000	15,728,000
Total net worth of the associations.....	123,250,000	150,741,000
Number of associations completely member-owned.....	2	176
Number of other associations in which member-owned capital plus legal reserves and surplus represents 75% or more of total net worth.....	68	241
Total income on loans.....	\$12,397,000	\$28,862,000
Interest expense on funds borrowed from Federal intermediate credit banks.....	3,539,000	9,362,000
Operating expenses.....	8,055,000	<sup>1</sup> 13,615,000
Final net earnings including income on investments and after providing for losses.....	3,459,000	7,261,000

<sup>1</sup> Includes income and other applicable taxes of \$473,000 in 1950 as compared with only a nominal amount in 1945.

## Appendix C

### Farm Credit Institutions

The following table reflects (1) total operating expenses of each group of Farm Credit institutions, (2) Farm Credit Administration examination costs and supervisory and service costs included in the

total operating expenses of all institutions, and (3) the percent that costs of the Washington office of the Farm Credit Administration were of the institutions' total operating expenses.

**Table F.—Operating expenses for years ended Dec. 31, 1940, and June 30, 1944 and 1948 through 1951**

Institution	Year ended Dec. 31, 1940	Year ended June 30				
		1944	1948	1949	1950	1951
PCAs <sup>1</sup> .....	\$6,757,632	\$8,141,533	\$10,105,002	\$11,533,161	\$12,654,333	\$13,799,951
PCCs.....	1,362,934	1,613,080	1,763,456	1,525,940	1,582,269	1,585,551
FICBs.....	1,490,764	1,565,536	1,521,968	1,526,592	1,612,208	1,704,301
BCs.....	1,036,678	1,257,297	1,702,820	1,696,590	1,759,169	1,829,077
FLB system <sup>2</sup> .....	12,317,100	11,568,314	16,040,546	15,675,535	15,821,745	16,777,728
FFMC <sup>3</sup> .....	9,864,126	7,777,563	2,372,089	1,871,106	1,603,731	1,250,828
Total.....	32,829,234	31,923,323	43,505,881	33,828,924	35,033,455	36,947,436
FCA costs included in total expenses <sup>4</sup> .....	1,440,151	2,526,777	2,183,148	2,011,447	2,205,963	2,226,321
FCA costs as percent of total expenses.....	4.39	7.92	6.52	5.95	6.30	6.03

<sup>1</sup> Amounts exclude taxes paid by PCAs in 1949, 1950, and 1951.

<sup>2</sup> Amounts represent expenses of the FLBs and NFLAs incurred on their own behalf.

<sup>3</sup> Amounts include expenses of the FLBs and NFLAs incurred on behalf of the FFMC.

<sup>4</sup> This amount includes accrued annual leave applicable to prior years set up in 1948 by the PCCs, FICBs, BCs and FLBs totaling \$1,755,000.

<sup>5</sup> In 1940 represents FCA examination costs of all institutions and supervisory costs of the FFMC; in other years represents both types of FCA expenses for all institutions, except the PCAs which do not pay supervisory costs. These amounts will not agree with those shown in tables in part I reflecting FCA assessable costs as generally these amounts represent assessments for the current year's expenses plus or minus adjustments of the assessments for the prior year's expenses, whereas the amounts in the other tables represent the final adjusted costs for particular years.

## Production Credit Associations

The general trend of operating expenses has been upward. The total expenses of individual groups of institutions, with the exception of the PCCs and FFMC (the latter has been liquidating its loans since July 1, 1947), and the total expenses of all institutions were greater in 1951 than in any of the other years shown. Discussions of expenses of individual groups of institutions are

included in connection with subsequent tables for those systems.

The Farm Credit Administration examination costs and supervisory and service costs included in the total operating expenses of the institutions showed a downward trend from 1944 through 1949 and an upward trend in 1950 and 1951. While such costs in 1951 were greater than in any other year

shown except 1944, the percent that they were of total operating expenses of the institutions was less in 1951 than in any year except 1949.

Comments applicable to the selected income and expense items and ratios shown in table G for the calendar years 1940, 1944, and 1948 through 1950, follow:

*Income from loan operations.*—Represents interest on loans and loan service fees, less patronage refunds. System-wide, income from loan operations in 1950 was over  $2\frac{1}{2}$  times greater than in 1940 and about 5 percent greater than in 1949. These increases reflect both the increased volume of business handled by the PCAs (as shown in the next to the last column in the table) and increased interest rates. The per annum rate of income from loan operations based on the average balance of loans outstanding increased from 5.56 percent in 1940 to slightly over 6 percent in 1949 and 1950.

*Cost of borrowed funds.*—Represents interest paid to the Federal intermediate credit banks. System-wide, the cost of borrowed funds in 1950 was almost  $3\frac{1}{2}$  times greater than in 1940 and slightly greater (3 percent) than in 1949. The increase from 1940 to 1950 reflects increases both in borrowed funds and in interest rates paid while between 1949 and 1950 it reflects only a larger volume of borrowings. The higher money costs in 1950 and 1949 absorbed entirely the increase in the per annum rate of income from loan

operations between 1940 and those years.

*Operating expenses.*—Represents all operating expenses of the associations including fees for abstract, filing, etc., but excluding taxes (primarily Federal and State income taxes), which for the system amounted to \$163,796 in 1948, \$237,796 in 1949, and \$473,427 in 1950.

While total operating expenses for all PCAs amounted to \$13,141,886 in 1950 and \$12,121,955 in 1949 as compared with \$6,757,632 in 1940, they absorbed only 2.76 and 2.66 percentage points, respectively, of the per annum rate of return on loans of slightly over 6 percent, whereas in 1940 expenses absorbed 3.71 percentage points of 5.56 percent.

*Net gain from loan operations.*—Represents income from loan operations, less cost of borrowed funds and operating expenses. System-wide, net gain from loan operations in 1950 amounted to \$6,358,416 compared with \$6,266,726 in 1949 and \$773,531 in 1940. The per annum rate of net gain based on the average volume of loans outstanding was 1.34 percent in 1950, 1.38 percent in 1949, and 0.42 percent in 1940.

*Net earnings before provision for losses.*—Represents net gain from loan operations, interest earned on investments and a small amount of miscellaneous income, less taxes.

*Final net earnings.*—The difference between this item and the preceding item represents the

## Production Credit Associations

Table G.—Selected income and expense items and ratios, calendar years 1940, 1944, and 1948 through 1950

District and year	Income from loan operations <sup>1</sup>		Cost of borrowed funds		Operating expenses <sup>2</sup>		Net gain from loan operations		Net earnings before provisions for losses		Final net earnings				Patronage refunds paid to borrowers	Memoranda	
	Amount	Per annum rate <sup>3</sup>	Amount	Per annum rate <sup>3</sup>	Amount	Per annum rate <sup>3</sup>	Amount	Per annum rate <sup>3</sup>	Amount	Per annum rate <sup>3</sup>	Amount	Per annum rate <sup>3</sup>	Rate of return on			Average balance of PCA loans outstanding	Per annum rate of PCC operating expenses <sup>3,4</sup>
													Total paid-in capital	Total net worth			
System:																	
1940-----	\$10,142,155	5.56	\$2,610,992	1.43	\$6,757,632	3.71	\$773,531	0.42	\$4,084,147	2.24	\$3,884,421	2.13	4.29	3.62	\$86,178	\$182,394,000	0.75
1944-----	12,335,021	5.24	3,444,375	1.46	8,101,255	3.44	789,391	.34	3,560,762	1.51	3,404,977	1.45	3.69	2.78	215,755	235,623,000	.67
1948-----	22,716,193	5.64	7,068,164	1.75	10,746,382	2.67	4,901,647	1.22	7,395,580	1.84	6,949,101	1.73	8.44	5.37	304,784	402,580,000	.44
1949-----	27,475,930	6.04	9,087,249	2.00	12,121,955	2.66	6,266,726	1.38	8,775,839	1.93	7,323,614	1.61	8.42	5.18	310,882	455,151,000	.34
1950-----	28,862,231	6.07	9,361,929	1.97	13,141,886	2.76	6,358,416	1.34	8,731,461	1.84	7,261,106	1.53	8.52	4.96	394,038	475,789,000	.33
Springfield:																	
1940-----	587,568	4.88	171,432	1.42	362,759	3.01	53,377	.45	277,219	2.30	240,306	2.00	3.84	3.41	---	12,043,000	.98
1944-----	847,894	4.73	258,347	1.44	521,814	2.91	67,733	.38	229,638	1.28	254,505	1.42	4.45	3.42	---	17,934,000	.80
1948-----	1,652,921	5.07	559,686	1.72	722,380	2.21	370,535	1.14	515,646	1.58	491,443	1.51	8.65	5.72	5,373	32,612,000	.47
1949-----	1,832,589	5.45	635,698	1.89	807,309	2.40	389,582	1.16	535,874	1.59	463,720	1.38	7.58	4.88	11,546	33,619,000	.37
1950-----	1,935,300	5.58	658,147	1.90	877,525	2.53	399,628	1.15	535,153	1.54	435,057	1.26	7.69	4.58	15,221	34,664,000	.37
Baltimore:																	
1940-----	552,390	5.82	140,970	1.49	394,333	4.15	17,087	.18	238,390	2.51	204,301	2.15	3.27	2.86	---	9,486,000	1.28
1944-----	746,997	5.38	219,814	1.58	467,704	3.37	59,479	.43	238,777	1.72	221,226	1.59	3.70	2.88	---	13,890,000	.99
1948-----	1,417,971	5.52	447,542	1.74	595,660	2.32	374,769	1.46	513,703	2.00	501,276	1.95	10.44	6.48	23,280	25,695,000	.48
1949-----	1,704,444	5.86	577,000	1.98	683,544	2.35	443,991	1.53	585,278	2.01	507,740	1.75	10.32	6.06	28,602	29,088,000	.41
1950-----	1,826,281	5.88	614,797	1.98	710,840	2.29	500,644	1.61	648,827	2.09	589,879	1.90	12.03	6.65	29,544	31,066,000	.38
Columbia:																	
1940-----	957,688	6.50	212,862	1.44	814,676	5.53	-69,850	-.47	336,253	2.28	284,839	1.93	2.62	2.31	---	14,729,000	.89
1944-----	1,306,531	5.89	333,803	1.50	863,399	4.03	79,329	.36	431,405	1.94	459,921	2.07	3.92	3.14	---	22,189,000	.74
1948-----	2,841,306	6.55	754,729	1.94	1,290,942	3.15	565,635	1.46	914,112	2.36	803,353	2.07	7.61	5.03	---	38,738,000	.46
1949-----	3,191,972	7.14	1,024,107	2.26	1,340,397	3.02	818,468	1.83	1,137,849	2.55	1,070,611	2.40	10.97	6.66	---	44,601,000	.35
1950-----	3,290,445	7.25	983,191	2.07	1,492,284	3.29	859,970	1.89	1,172,576	2.58	1,063,359	2.34	10.46	6.05	2,923	45,399,000	.34
Louisville:																	
1940-----	1,290,351	5.60	304,599	1.42	859,552	4.01	36,200	.17	310,737	1.45	266,137	1.24	3.28	2.84	---	21,431,000	.60
1944-----	1,395,062	5.26	389,088	1.47	1,032,349	3.89	-26,375	-.10	245,253	.92	216,402	.82	2.10	1.75	8,447	26,533,000	.86
1948-----	2,640,298	6.53	762,728	1.60	1,359,688	2.85	517,852	1.08	788,118	1.65	735,128	1.54	7.99	5.78	7,212	47,733,000	.36
1949-----	3,235,793	5.94	1,083,317	1.96	1,563,757	2.87	603,719	1.11	900,596	1.65	848,321	1.56	8.60	5.96	7,137	64,421,000	.28
1950-----	3,622,838	5.97	1,179,834	2.00	1,723,387	2.92	619,517	1.05	919,627	1.56	833,430	1.41	8.91	5.74	14,492	59,007,000	.26

## RISK PROBLEMS OF PCAs

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New Orleans:																
1940.....	758,319	6.54	164,127	1.42	481,265	4.15	112,927	.97	371,957	3.21	238,796	2.06	3.55	2.90	11,596,000	.74
1941.....	1,087,973	6.76	273,794	1.45	640,432	3.39	173,747	.92	381,261	2.02	337,117	1.76	4.88	2.53	18,864,000	.56
1942.....	1,874,298	6.28	538,458	1.80	988,501	2.98	447,339	1.50	601,932	2.02	645,478	2.10	10.97	6.44	15,042,000	.46
1943.....	2,200,903	6.34	646,734	2.02	946,734	2.81	576,185	1.71	740,021	2.20	673,001	1.11	8.57	3.25	33,644,000	.36
1944.....	2,211,865	6.64	646,714	1.94	985,299	2.97	576,860	1.73	740,046	2.22	671,613	2.02	10.15	5.08	33,325,000	.37
St. Louis:																
1940.....	1,123,333	5.76	281,150	1.44	708,847	3.95	72,336	.37	347,308	1.78	350,693	1.80	4.54	3.91	19,485,000	.66
1941.....	1,300,002	5.34	348,063	1.43	952,342	3.91	72,336	-----	251,964	1.03	242,397	1.00	2.45	1.97	24,350,000	.61
1942.....	2,425,015	5.86	728,588	1.76	1,085,065	2.82	528,362	1.28	815,824	1.97	800,088	2.01	8.47	6.05	41,380,000	.42
1943.....	2,958,558	6.23	924,020	1.95	1,350,312	2.86	675,226	1.42	945,974	1.99	732,270	1.54	6.99	4.78	47,457,000	.33
1944.....	3,128,829	6.26	967,715	1.94	1,440,796	2.88	720,318	1.44	979,793	1.96	857,169	1.72	8.75	5.64	49,962,000	.31
St. Paul:																
1940.....	826,294	5.61	208,949	1.42	639,869	4.34	-22,524	-1.15	294,310	1.79	288,982	1.96	3.68	3.17	14,741,000	.88
1941.....	805,744	5.07	221,207	1.39	604,314	3.80	-19,777	-1.12	175,551	1.11	163,802	1.03	2.30	1.80	15,890,000	.86
1942.....	1,492,843	5.56	437,916	1.63	845,426	3.15	209,601	.78	385,710	1.44	372,709	1.39	6.20	4.22	26,872,000	.57
1943.....	1,970,723	6.13	626,617	1.95	997,182	3.15	346,924	1.08	523,953	1.63	510,063	1.59	7.93	5.25	32,144,000	.41
1944.....	2,150,651	6.17	636,063	1.97	1,072,004	3.07	392,584	1.13	559,565	1.61	515,253	1.49	9.11	5.47	34,832,000	.37
Omaha:																
1940.....	672,046	5.06	188,335	1.42	428,066	3.22	55,645	.42	314,754	2.37	334,253	2.52	4.76	3.95	13,288,000	.82
1941.....	828,936	4.75	253,030	1.45	523,235	3.00	52,665	.30	290,304	1.44	290,304	1.62	3.89	2.53	17,430,000	.69
1942.....	1,218,327	4.64	421,770	1.61	590,735	2.25	205,822	.78	369,400	1.41	365,853	1.39	6.87	4.24	26,290,000	.49
1943.....	1,606,256	5.20	586,777	1.93	652,484	2.15	366,995	1.21	544,263	1.79	488,507	1.54	8.56	5.11	30,392,000	.40
1944.....	1,868,532	5.31	674,021	1.91	783,942	2.23	410,569	1.17	556,164	1.58	430,472	1.22	7.95	4.53	35,191,000	.34
Wichita:																
1940.....	797,357	5.35	212,718	1.43	480,516	3.22	104,123	.70	369,441	2.48	352,009	2.36	4.92	3.96	14,894,000	.74
1941.....	829,126	5.14	234,710	1.46	548,368	3.40	46,050	.28	271,467	1.68	291,208	1.62	3.89	2.68	16,117,000	.82
1942.....	1,672,807	5.31	518,612	1.74	708,016	2.25	416,179	1.32	632,398	2.01	594,026	1.89	10.16	5.55	31,475,000	.44
1943.....	2,071,184	5.57	730,933	1.96	802,232	2.16	538,659	1.45	705,120	2.06	727,688	1.95	11.52	6.46	37,177,000	.32
1944.....	2,106,773	5.60	724,970	1.93	882,035	2.34	490,768	1.33	712,821	1.89	622,143	1.65	10.15	5.34	37,647,000	.32
Houston:																
1940.....	921,947	5.35	214,320	1.40	515,840	3.36	91,787	.60	347,926	2.27	372,965	2.43	5.35	4.48	15,343,000	.60
1941.....	1,346,302	5.23	373,945	1.46	838,591	3.34	111,825	.43	375,678	2.46	330,734	1.36	4.14	3.18	25,731,000	.48
1942.....	2,394,363	6.13	739,180	1.80	1,901,374	2.85	633,809	1.50	859,095	2.04	737,566	1.75	9.49	5.94	42,153,000	.33
1943.....	3,114,052	6.03	953,578	2.02	1,338,060	2.82	830,114	1.79	1,064,914	2.25	791,061	1.61	8.61	5.37	47,423,000	.25
1944.....	3,099,030	6.36	941,006	1.99	1,453,038	3.10	692,985	1.47	866,724	1.83	395,436	0.84	4.12	2.53	47,245,000	.26
Berkeley:																
1940.....	798,471	5.27	215,365	1.42	470,639	3.11	112,267	.74	397,649	2.63	466,618	3.08	6.11	5.07	15,138,000	.77
1941.....	927,927	4.99	268,206	1.44	500,163	2.69	139,538	.86	373,217	2.01	342,477	1.84	5.31	3.53	18,693,000	.64
1942.....	1,387,994	5.25	491,640	1.86	686,965	2.60	200,389	.79	401,840	1.52	353,144	1.27	6.15	3.41	26,411,000	.58
1943.....	1,515,370	5.32	557,700	1.96	768,618	2.70	180,052	.66	370,471	1.30	294,790	1.04	5.29	2.88	28,479,000	.44
1944.....	1,513,921	5.43	547,562	1.96	777,510	2.79	188,849	.68	376,368	1.35	364,362	1.31	6.70	3.53	27,871,000	.45
Spokane:																
1940.....	1,046,391	5.17	295,965	1.46	540,270	2.67	210,156	1.04	598,208	2.51	484,432	2.40	6.08	4.74	20,290,000	.44
1941.....	912,467	5.04	268,362	1.48	538,546	3.09	85,559	.47	334,708	1.85	325,884	1.80	5.09	3.21	18,022,000	.61
1942.....	1,798,080	5.48	617,315	1.85	735,630	2.28	422,135	1.27	597,892	1.79	537,037	1.61	8.90	4.95	33,326,000	.40
1943.....	2,043,994	5.38	723,107	1.97	853,276	2.33	467,611	1.28	661,517	1.81	591,942	1.53	8.75	4.78	36,046,000	.32
1944.....	2,207,706	5.58	782,809	1.98	928,284	2.35	496,723	1.25	663,197	1.68	479,993	1.21	7.41	3.89	39,580,000	.30

1 After patronage refunds.

2 Excludes taxes, which for the system totaled \$103,796 in 1948; \$237,796 in 1949 and \$473,427 in 1950.

3 Based upon the average balance of PCA loans outstanding. Some rates vary from those given in table 12 by one-hundredth of one percent because of differences in

rounding off to make them add across.

4 PCA expenses for 1940 do not include Washington office supervisory costs which since the corporations began paying these costs effective July 1, 1942, have aggregated systemwide over \$200,000 a year.

Farm Credit Administration—Finance and Accounts Division.

amount of actual loan losses incurred plus provisions for future losses. System-wide, the amount of final net earnings of \$7,261,106 in 1950 was 87 percent greater than in 1940, but slightly less than in 1949. The increase in the system's final net earnings between 1940 and 1950 was due entirely to a larger net gain from loan operations. Based on the average amount of loans outstanding the per annum rate of final net earnings was 1.53 percent in 1950 and 1.61 percent in 1949 compared with 2.13 percent in 1940.

The rates of return on paid-in capital and total net worth in 1950 were 8.52 percent and 4.96 percent, respectively, compared with 8.42 percent and 5.18 percent in 1949 and 4.29 percent and 3.62 percent in 1940.

## Production Credit Corporations

Comments applicable to the selected income and expense items shown in table H for the calendar year 1940 and the fiscal years ended June 30, 1944, and 1948 through 1951.

*Operating income.*—Represents primarily interest on securities, but also includes dividends on class A stock of PCAs and miscellaneous income. System-wide, and for each corporation, operating income in 1951 and 1950 was substantially less than in prior years. The decreases resulted from sales of securities in 1949 which were made to obtain funds to retire U. S. Government capital.

*Per annum rate of PCC operating expenses.*—This rate was determined by relating the corporations' operating expenses for the respective calendar years to the average balance of PCA loans outstanding. While the corporations' expenses increased from \$1,362,934 in 1940 to \$1,562,686 in 1949 and \$1,570,270 in 1950, the per annum rate based on the average balance of PCA loans outstanding decreased from 0.75 percent in 1940 to 0.34 percent in 1949 and 0.33 percent in 1950. Included in the corporations' expenses since July 1, 1942, are Washington office supervisory costs which have aggregated over \$200,000 a year.

The combined per annum rate of operating expenses of the PCAs and PCCs was 3.09 percent in 1950 and 3 percent in 1949 compared with 4.46 percent in 1940.

*Operating expenses.*—Represents all operating expenses including examination costs and, except in 1940, Washington office supervisory costs. The corporations began paying the latter costs, which aggregate more than \$200,000 a year, effective July 1, 1942. Included in 1948 expenses is a nonrecurring charge of \$219,000 representing the cost of establishing as a liability on the records of the corporations the value of accrued annual leave of the corporations' employees applicable to 1947 and prior years.

System-wide, the corporations' expenses of \$1,585,551 in 1951 were 16 percent higher than in 1940 and

## Production Credit Corporations

Table H.—Selected income and expense items, 1940, 1944, and 1948 through 1951<sup>1</sup>

Corporation and year	Operating income	Operating expenses	Net gain from operations	Final net earnings
<b>System:</b>				
1940 <sup>2</sup> -----	\$1,600,642	\$1,362,934	\$237,708	\$1,833,544
1944-----	1,467,769	1,613,080	-145,311	668,317
1948-----	1,773,089	1,763,456	9,633	634,052
1949-----	1,585,314	1,525,940	59,374	379,633
1950-----	1,019,227	1,582,269	-563,042	-339,291
1951-----	1,098,802	1,585,551	-486,749	-600,622
<b>Springfield:</b>				
1940 <sup>2</sup> -----	135,024	118,316	16,708	189,122
1944-----	140,251	139,055	1,196	56,882
1948-----	151,752	159,562	-7,810	39,585
1949-----	138,157	125,158	12,999	29,048
1950-----	85,748	127,884	-42,136	-42,136
1951-----	91,815	132,862	-41,047	-111,598
<b>Baltimore:</b>				
1940 <sup>2</sup> -----	138,449	121,128	17,321	180,577
1944-----	115,054	139,871	-24,817	42,813
1948-----	151,947	120,032	31,915	100,868
1949-----	138,331	114,006	24,325	55,262
1950-----	87,367	120,022	-32,655	-32,863
1951-----	90,225	119,567	-29,342	-76,957
<b>Columbia:</b>				
1940 <sup>2</sup> -----	138,484	131,151	7,333	181,801
1944-----	114,028	165,049	-51,021	40,465
1948-----	163,651	173,570	-9,919	44,076
1949-----	151,451	151,721	-270	19,447
1950-----	88,759	158,289	-69,530	-67,601
1951-----	91,978	157,716	-65,738	-70,969
<b>Louisville:</b>				
1940 <sup>2</sup> -----	135,779	128,473	7,306	123,013
1944-----	111,804	154,335	-42,531	-24,844
1948-----	162,080	163,134	-1,054	29,247
1949-----	142,478	151,827	-9,349	2,912
1950-----	91,120	154,872	-63,752	-50,648
1951-----	100,199	158,847	-58,648	-140,025
<b>New Orleans:</b>				
1940 <sup>2</sup> -----	109,618	85,818	23,800	139,680
1944-----	111,666	112,544	-878	42,695
1948-----	132,005	131,293	712	41,703
1949-----	117,130	116,885	245	7,599
1950-----	70,022	123,297	-53,275	-36,393
1951-----	78,451	123,474	-45,023	-53,415
<b>St Louis:</b>				
1940 <sup>2</sup> -----	165,644	129,206	36,438	113,713
1944-----	122,501	152,144	-29,643	7,947
1948-----	160,604	175,175	-14,571	22,912
1949-----	151,753	148,175	3,578	18,754
1950-----	101,587	155,928	-54,341	-36,832
1951-----	110,428	157,526	-47,098	-49,718

See footnotes at end of table.

Table H.—Selected income and expense items, 1940, 1944, and 1948 through 1951<sup>1</sup>—Con.

Corporation and year	Operating income	Operating expenses	Net gain from operations	Final net earnings
<b>St. Paul:</b>				
1940 <sup>2</sup> -----	\$175,849	\$130,106	\$45,743	\$181,099
1944-----	140,603	135,563	5,040	47,858
1948-----	151,984	159,427	-7,443	56,437
1949-----	132,779	127,754	5,025	45,315
1950-----	102,062	129,563	-27,501	65,894
1951-----	103,439	132,279	-28,840	-8,913
<b>Omaha:</b>				
1940 <sup>2</sup> -----	109,892	108,974	918	131,179
1944-----	116,114	125,207	-9,093	44,039
1948-----	141,855	121,302	20,553	87,316
1949-----	120,125	116,772	3,353	27,370
1950-----	80,448	121,679	-41,231	-41,231
1951-----	85,935	118,673	-32,738	-32,205
<b>Wichita:</b>				
1940 <sup>2</sup> -----	129,951	110,934	19,017	170,694
1944-----	101,478	133,977	-32,499	20,056
1948-----	138,250	134,492	3,758	63,600
1949-----	118,036	118,852	-816	27,942
1950-----	74,578	121,141	-46,563	-47,657
1951-----	82,871	124,280	-41,409	-71,530
<b>Houston:</b>				
1940 <sup>2</sup> -----	111,397	92,040	19,357	120,569
1944-----	100,086	127,125	-27,039	46,541
1948-----	142,201	137,275	4,926	46,262
1949-----	128,131	115,501	12,630	65,046
1950-----	80,840	123,090	-42,250	-42,250
1951-----	82,690	119,733	-37,043	-28,995
<b>Berkeley:</b>				
1940 <sup>2</sup> -----	119,196	116,949	2,247	109,936
1944-----	139,535	119,891	19,644	150,405
1948-----	139,686	154,742	-15,056	48,667
1949-----	128,519	126,804	1,715	41,641
1950-----	81,967	127,154	-45,187	657
1951-----	96,965	126,085	-29,120	-27,458
<b>Spokane:</b>				
1940 <sup>2</sup> -----	131,359	89,839	41,520	192,161
1944-----	154,649	108,319	46,330	193,460
1948-----	137,074	133,452	3,622	53,379
1949-----	118,424	112,485	5,939	39,297
1950-----	74,729	119,350	-44,621	-8,231
1951-----	83,806	114,509	-30,703	71,161

<sup>1</sup> Calendar year 1940 and fiscal years ended June 30, 1944 and 1948 through 1951.<sup>2</sup> 1940 data do not include Washington office supervisory costs which, since the corporations began paying these costs effective July 1, 1942, have aggregated system-wide over \$200,000 a year.

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slightly higher than in 1950. The difference between expenses in 1940 and later years is accounted for almost entirely by Washington office supervisory costs, which were not included in 1940 expenses.

*Net gain from operations.*—Represents the difference between the corporations' operating income and operating expenses. The smaller amounts of operating income in 1951 and 1950 resulting from reductions in securities, as explained above, were not sufficient to pay operating expenses, thereby causing the corporations to show net operating losses in those years of \$486,749 and \$563,042, respectively.

*Final net earnings.*—The difference between this item and net

gain from operations represents almost entirely profit or loss on security transactions. The substantial net earnings shown for 1940 resulted from the sale at substantial premiums of large holdings of consolidated Federal farm loan bonds callable in 1944. The proceeds of such sales were reinvested in long-term U. S. Treasury bonds. The net earnings in 1948 include a net of \$464,000 resulting from the reinstatement of premiums applicable to the remaining noncallable life of securities owned, which had previously been charged off. System-wide, the corporations showed final net losses in 1951 of \$600,622, and in 1950 of \$339,291.

## Production Credit System

Comments applicable to the data in the following table which show PCA and PCC operating expenses for the calendar years 1940, 1944, and 1948 through 1950 related to (1) the number of PCA loans made and (2) the average number of PCA loans outstanding.

*Operating expenses.*—The operating expenses shown in this table are the same as those in the two preceding tables showing selected income and expense data for the PCAs and the PCCs except that (1) PCC expenses are on a calendar year basis for comparability with PCA expenses and (2) PCC expenses for 1948, in order to afford comparability with expenses for other years, exclude a nonrecurring charge of \$219,000 representing the cost of establishing as a liability on

the records of the corporations the value of accrued annual leave of the corporations' employees applicable to 1947 and prior years.

*Operating expenses per PCA loans made.*—System-wide, PCA and PCC expenses per each PCA loan made in 1950 amounted to \$45.62 and \$5.45, respectively, or a total of \$51.07. These unit costs compare with \$42.17, \$5.44, and \$47.61 in 1949 and \$29.26, \$5.90, and \$35.16 in 1940. The increases in PCA unit costs resulted from PCA expenses increasing at a faster rate than the the number of PCA loans made. The \$13,141,886 of expenses in 1950 were almost double the expenses in 1940, whereas the 288,068 loans made were only 24.7 percent greater than the number made in 1940. On the other hand,

## Production Credit System

Table 1.—Operating expenses of the PCAs and PCCs related to (1) the number of PCA loans made and (2) the average number of PCA loans outstanding, calendar years 1940, 1944, and 1948 through 1950

District and year	Operating expenses			Operating expenses per PCA loan made				Operating expenses per average number of PCA loans outstanding			
	PCA <sup>1</sup>	PCC <sup>2</sup>	Total	Number of PCA loans made	PCA	PCC	Total	Average number of PCA loans outstanding	PCA	PCC	Total
<b>System:</b>											
1940 <sup>3</sup>	\$6,757,632	\$1,362,934	\$8,120,566	230,940	\$29.26	\$5.90	\$35.16	194,794	\$34.69	\$7.00	\$41.69
1944	8,101,255	1,584,300	9,685,555	218,345	37.10	7.26	44.36	174,036	46.55	9.10	55.65
1948	10,746,382	1,556,186	12,302,568	274,397	39.16	5.67	44.83	220,855	53.66	7.77	61.43
1949	12,121,955	1,562,686	13,684,641	287,443	42.17	5.44	47.61	220,836	54.89	7.08	61.97
1950	13,141,886	1,570,270	14,712,156	288,068	45.62	5.45	51.07	222,928	58.95	7.04	65.99
<b>Springfield:</b>											
1940 <sup>3</sup>	362,759	118,316	481,075	13,088	27.72	9.04	36.76	11,152	32.53	10.61	43.14
1944	521,814	142,867	664,681	15,345	34.01	9.31	43.32	12,632	41.31	11.31	52.62
1948	722,380	130,767	853,147	18,651	38.73	7.01	45.74	15,337	47.10	8.53	55.63
1949	807,309	126,004	933,313	19,311	41.81	6.52	48.33	16,086	50.19	7.83	58.02
1950	877,525	129,220	1,006,745	19,475	45.06	6.64	51.70	16,508	53.16	7.83	60.99
<b>Baltimore:</b>											
1940 <sup>3</sup>	394,333	121,128	515,461	13,217	29.84	9.16	39.00	10,931	36.07	11.08	47.15
1944	467,704	137,227	604,931	12,000	38.98	11.44	50.42	10,916	42.85	12.57	55.42
1948	595,660	109,757	705,417	16,677	35.72	6.58	42.30	13,499	44.13	8.13	52.26
1949	683,544	120,107	803,651	17,671	38.68	6.80	45.48	15,254	44.81	7.87	52.68
1950	710,840	117,454	828,294	17,560	40.48	6.69	47.17	15,733	45.18	7.47	52.65
<b>Columbia:</b>											
1940 <sup>3</sup>	814,676	131,151	945,827	43,991	18.52	2.98	21.50	31,197	26.11	4.20	30.31
1944	893,399	163,509	1,056,908	37,997	23.64	4.33	27.97	26,185	34.12	6.24	40.36
1948	1,220,942	150,312	1,371,254	51,197	23.85	2.94	26.79	33,862	36.06	4.44	40.50
1949	1,349,397	156,566	1,505,963	54,040	24.97	2.90	27.87	38,181	35.34	4.10	39.44
1950	1,492,284	155,178	1,647,462	51,683	28.87	3.00	31.87	36,883	40.46	4.21	44.67
<b>Louisville:</b>											
1940 <sup>3</sup>	859,552	128,473	988,025	34,814	24.69	3.69	28.38	33,171	25.91	3.87	29.78
1944	1,032,349	147,847	1,180,196	29,838	34.60	4.95	39.55	26,835	34.12	5.51	39.63
1948	1,359,688	151,832	1,511,520	38,580	35.24	3.94	39.18	30,593	44.44	4.96	49.40
1949	1,563,757	151,453	1,715,210	42,104	37.14	3.60	40.74	34,438	45.41	4.40	49.81
1950	1,723,387	155,883	1,879,270	44,299	38.90	3.52	42.42	36,965	46.62	4.22	50.84
<b>New Orleans:</b>											
1940 <sup>3</sup>	481,265	85,818	567,083	22,755	21.15	3.77	24.92	19,237	25.02	4.46	29.48
1944	640,432	104,866	745,298	27,967	22.90	3.75	26.65	20,947	30.57	5.01	35.58
1948	888,501	118,505	1,007,006	31,880	27.87	3.72	31.59	23,384	36.00	5.07	41.07
1949	946,754	120,555	1,067,309	33,783	28.02	3.57	31.59	25,840	36.64	4.67	41.31
1950	988,291	124,741	1,113,032	31,426	31.45	3.97	35.42	23,727	41.65	5.26	46.91



PCC expenses increased at a slower rate than PCA loans made (the \$1,570,270 of expenses in 1950 being only 15.2 percent greater than expenses in 1940), thereby causing a small decrease in PCC unit costs between 1940 and 1950. PCC expenses and unit costs for 1940 do not reflect Washington office supervisory costs which, since the corporations began paying these costs effective July 1, 1942, have aggregated system-wide over \$200,000 a year.

*Operating expenses per average number of PCA loans outstanding.*—Since the major volume of PCA business is for terms less than 1 year, the average number of PCA loans outstanding for any

year is less than the number of loans made for that year. As a result, PCA and PCC operating expenses per the average number of PCA loans outstanding are greater than per PCA loans made.

System-wide, PCA and PCC operating expenses per the average number of PCA loans outstanding in 1950 amounted to \$58.95 and \$7.04, respectively, or a total of \$65.99. These unit costs compare with \$54.89, \$7.08, and \$61.97 in 1949 and \$34.69, \$7.00, and \$41.69 in 1940. As mentioned in the previous paragraph, PCC unit costs for 1940 do not reflect Washington office supervisory costs as the corporations did not begin paying these costs until July 1, 1942.

